THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXIII. SATURDAY, NOVEMBER 11, 1893. NO. 20.

ORIGINAL ARTICLES.

THE INFLUENCE OF CLIMATE ON THE BREATHING-HABIT, WITH A COMPARISON OF AMERICAN CLIMATIC RESORTS.

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THERE ought to be a special text-book and a special chair in every medical school devoted to the principles and practice of respiration. No department of physiology is so vitally and universally important, and none is so universally slighted and ignored.

In all wasting and in most other chronic diseases, what is termed by physiologists *the equilibrium of metabolism* is disturbed. The patient no longer replenishes and repairs as rapidly as he wastes. This lost equilibrium can be reëstablished and preserved only by prompt and persistent recourse to all known hygienic and physiologic resources. Instigating and underlying all the vital functions, and back of all forms of tissue-change, is the unique and fundamental function of respiration. Breathing is the indispensable preliminary process and *sine qua non* of digestion. An imperfectly performed breathing-function means proportionately diminished digestive power, inadequate assimilation, retarded metabolism, insufficient hematosis, and, consequently, anemia, emaciation, and general vital decline. Many chronic invalids are more or less handicapped in the struggle for life by an inherited or acquired lack of lung-capacity; and yet, with very few exceptions, this lack can be overcome if the capacity possessed be at all times thoroughly and fully utilized. Patients are quite inclined to unthinkingly and perhaps unconsciously avoid this, unless they be placed under conditions that naturally tend to induce if not to actually compel it. Thus the total respiratory capacity of an average male adult is placed at from 200 to 230 cubic inches; but of this only an almost inconsiderable fraction is habitually brought into use, leading authorities in respect to physiologic data asserting that the quantity of tidal air inhaled at each ordinary and passive respiratory effort does not exceed from 20 to 30 cubic inches. Accepting this statement, it follows that not more than one-eighth of the total quantity of air in the lungs is subject to renewal at each ordinary act of respiration, the other portions being designated, respectively, *complemental*, *reserve*, and *residual* air. These several portions are estimated and defined as follows:

Complemental air, 110 cubic inches, is the volume that can be forcibly inspired over and above what is taken in at an ordinary normal respiration. *Reserve* or *supplemental* air, 100 cubic inches, is the volume of air that can be expelled from the chest after a normal quiet expiration. *Residual* air, 100 cubic inches, is the volume of air that remains in the chest after the most complete or forced expiratory effort.

The breathing-apparatus is therefore endowed with a remarkable and fairly disproportionate reserve fund and capacity, which can be impressed into service at any time to meet any unusual contingency of the vital necessities or physiologic demand. How far and how fully this reserve can be made to reach and remedy pathologic conditions is a subject that has hitherto received but a modicum of professional attention. Waldenburg vaguely presaged its possibilities in advocating his compressed-air chambers, and the more recent pneumatic cabinet was another somewhat cumbersome effort in the same direction. These purely mechanical and compulsory means of accomplishing the object sought—lung-expansion—bear about the same relation to normal physiologic measures that dumb-bells and Indian-clubs bear to rowing, hunting, tennis, and other forms of pleasurable exercise. They may be utilized under certain unusual conditions and in some emergencies with decided and unmistakable advantage; but they are too formal, too heroic, and not susceptible of sufficiently accurate regulation to ever become of more than limited availability.

Among the natural and universally applicable means and methods, consciously or unconsciously advised, and either empirically or intelligently adopted and used, with the result of calling into service more or less of this reserve capacity and resource, may be mentioned all the multitudinous forms of muscular exercise—pedestrianism, horseback riding, rowing, hunting, mountain-climbing, out-door games, and old-fashioned *work*. As imitations of all of these, we have mathematico-anatomic systems of gymnastics, the health-lifts and "home developers." Resort to any of these increases the breathing-necessity, and to the same extent compels the utilization of reserve respiratory capacity. Any treatment of pulmonary and other wasting and

chronic diseases that ignores the fundamental and paramount value of an enhanced breathing-function is from the outset severely, if not hopelessly, handicapped. Forced feeding, increasing the proportion of the so-called respiratory foods, intra-pulmonary disinfection, and antisepsis, chemic antidotes, toxic inoculation, and the use of artificial oxygen, have all been resorted to, in the hope of finding some approximation to a specific *règime* or method by which to combat the annual inroads of the more prevalent and fatal forms of chronic disease. But notwithstanding the professional *éclat* with which some of them were announced, the high hopes entertained, and the painstaking accuracy and expertness with which the details of complicated experiments were carried out, all alike—hot-air inhalations, sodium and gold chlorid, beechwood creosote, tuberculin, and pyoktanin—all have professionally proved flat failures and popularly cruel delusions.

Doubtless the professional dreamers and theorizers, delusionist imitators of Ponce de Leon, who, in or out of the profession, still cherish a vague and nebulous, if not outspoken, faith in the existence of some sort of scientifically refined and modernly improved philosopher's stone, who have never admitted the impossibility of evolving a perpetual motion or self-replenishing force, and who are quite convinced that the Kochs, Pasteurs, and Brown-Séquards of the age are on the eve of announcing a direct antagonist, an autotoxic, germ-engendered antidote to pulmonary tuberculosis, impotency, rheumatism, and old age, will continue the fascinatingly hopeless search for specifics. But evidently the sooner the profession and the professors abandon all attempts to evolve or discover chemic, dynamic, organic, "kinetic," or any other real, far-fetched, or phantom form of "remedy" for the various forms of wasting and constitutional diseases, the sooner will wise physicians begin to avail themselves of the wide range of rational and strictly physiologic agencies and resources that have always been at command, that are as old as Nature, and that we are almost ready to recognize as the only forces, influences, or materials in the universe that can logically be termed "remedies," and that must, therefore, eventually become, in legal parlance, our court of final resort—the oyer and terminer of physiologic as of pathologic science. Props, aids, and temporary palliatives, it is true, abound; and some of these, from time to time, acquire transient renown as specifics. But after flourishing for a brief day, as the fad or fashion of the profession, and somewhat longer as an overdone popular craze, each is relegated to the dusty shelves of the world's already crammed museum of delusional relics, to be referred to in the future history of the healing art as the momentary phantasy of physiologic myopes, who studied pathology and therapeutics from the standpoint of the dead-house, the rabbit-pen, and the laboratory, rather than from Nature and the clinique. The dead-house and laboratory searchers and inoculators are still in the field, but already their periodic "discoveries" and "scientific" sensations are beginning to be received with incredulous apathy and cynical impatience; and a generation or two hence the whole tribe and race of them will have become extinct.

The history of medicine and surgery, as it has been exploited or developed during the past quarter of a century, will be filled with the débris of dishonored and discarded "great discoveries," the godchildren of a hundred would-be eclipsers of Harvey, Jenner, and Pasteur. In that history the "chemic" and quintessence quacks will have their share, but these have not all been without the pale of the profession proper. For years opium, quinin, and coal-tar derivatives have been the sheet-anchors of the busy physician, and surgery has leaned upon cocain and mercuric chlorid. Just now the "animal extracts" are having, or at least demanding, an inning. A little further on the surgeons will wonder how their predecessors could have dared or needed to be so careless and lavish with the temptingly delusive cocain and the insidiously dangerous bichlorid; and the "animal extract" man—if he should live so long, through the timely absorption of his wonderful organic essences and vital resuscitators—will be heralding some newer and more remunerative if not more mysterious fad.

Dropping the digression, there would at first thought seem to be no direct relation between climatology and the breathing-habit; but a little reflection will disclose a very intimate inter-dependence between the two. Climates differ greatly in regard to mean temperature, and especially as to temperature-range, relative and absolute humidity, and in regard to altitude. That is to say, climatic variations depend to a certain extent upon all of these, and to a very definite extent upon increase or decrease of the elevation above sea-level; and all of these variations directly affect and determine the character of the breathing-habit. In any climate, whatever favors and induces an habitual out-door life proportionately and normally enhances the respiratory function. Equability, topographic attractiveness and scenic beauty, preponderance of pleasant weather, and especially of sunshine, absence of soil-moisture and of excessive atmospheric humidity—these are all qualities that make a climate desirable for chronic invalids, because they render open-air life and freedom of action at all times both prudent and pleasurable, and therefore inviting. Among the various artificial and generally much better appre-

ciated aids available at any location and in any climate may be cited mechanical facilities, artistic embellishment, and the moral and social environment. All of these aid in the psychic and mind cure side of the treatment, which should never be underrated or neglected.

The question as to where the best aggregation of these essential conditions and qualities can be found cannot be answered in a sweeping way in favor of this or that particular locality or climate for all all classes of invalids, but must to a certain extent be specially considered in each individual case, or at least in each general class of cases. At the same time, certain general rules apply to all cases, barring individual idiosyncrasy and any peculiar circumstances or conditions affecting and surrounding a given case. While it cannot be questioned that our own country, with its wide stretch of both latitude and longitude, and its almost endless variety of altitudes and configuration, affords every gradation of climate and scenery that could be rationally asked for, the patriotic prejudice indulged by those who decry all resort to foreign climes is without physiologic basis, and is narrow and sectional at best, as the whole earth is for the whole race, if they can compass it; and if patient, friends or physician has an unreasonable predilection for the shores of the Mediterranean, the valleys and slopes of the Swiss Alps, or the spas of Vaterland, their incomes warranting the outlay, there is no reason why the whim should not be encouraged, as the turning-point in many an invalid's history has, to all appearances, been based on nothing more substantial.

Let us restrict the present inquiry to localities and climates embraced within the borders of our own country. Florida early acquired a reputation that has hardly been maintained. Patients, especially of the pulmonary class, were originally sent there indiscriminately and at random, solely on account of its sub-tropical and peninsular climate. At present much more discretion is being exercised, and many physicians hesitate to send any class of patients to that locality for various reasons, but chiefly on account of the marked tendency to malarial complications there present. In Florida none of the effects and advantages of varying altitudes can be obtained, the elevation at the highest point in the peninsula being not more than a few feet above sea-level. The annual rainfall is somewhat excessive, and when it does not rain the fogs and dews are heavy enough to keep vegetation perennially green, and, as a consequence, atmospheric humidity is proverbially excessive. This condition is inseparable from "the lay of the land" and the monotonous proximity and prevalence of water. The whole peninsula is practically an island, or an archipelago of islands, anchored in the Gulf. Its most ambitious rivers are little more than broad, alligator-breeding bayous, of black and almost stagnant water. Lakes abound, underground streams are not rare, water is found by digging a few feet, in some places but a few inches below the surface, and the whole region gives the impression of being "made land" over an oozy marsh, "the Everglades" still being in a transition-stage.

Notwithstanding these numerous and decided drawbacks, many cases of tuberculosis, particularly of the laryngeal type, and of imperfectly-recovered pneumonias, do remarkably well with a winter's sojourn in "The Land of Flowers."

Beyond the bare feasibility of spending the greater portion of every day in the open air, when rain or thick fogs do not prevent, there is nothing in the climatic characteristics to stimulate or in the slightest degree develop the breathing-capacity. It is inclined to be a debilitating and languor-inducing, rather than a tonic climate. On the other hand, the social amenities have been much cultivated. Palatial hostelries and inviting resorts, with ample accommodations and luxurious appointments, are plentiful, so that the fashionable, as well as invalids, flock to the St. James, the Alcazar, the Ponce de Leon, and the hundreds of less pretentious resorts, every season, rather to escape the rigors of our Northern winters, and to enjoy social sensations, with a languid *dolce far niente*, than with any definite sanatory purposes.

The mountain regions of Georgia and the Carolinas furnish a very different aggregation of climatic qualities and conditions. The various localities in this region that have thus far been developed and brought into favorable popular as well as professional repute possess many desirable features. A moderate range of altitudes is available, the temperature-range is moderate, the annual precipitation is only about forty inches, and atmospheric humidity is not excessive.

The soil is porous and absorbent, the scenery and surroundings romantic and attractive, artificial auxiliaries are in fair supply, and reported results are quite as favorable as those of any of the noted foreign resorts. The region is one of pine forests, and hence has the desired reputation for balsamic and ozonic emanations and influences, the value of which is now unquestioned, although sometimes overrated. The entire belt is, however, subject to one quite serious drawback, that of occasional sudden and trying temperature-fluctuations. For some invalids this is not necessarily disastrous. In fact, it adds zest and variety to their everyday experiences, and acts as a constitutional tonic; but it compels us to rate the climate as somewhat robust, so much so that a certain class of sensitive sufferers who seek it are disappointed, and are driven elsewhere.

The next most popular region in the eastern portion of the United States is found in Northern New York, and is known as "The Adirondack Wilderness." This locality, with its varied advantages, has been so thoroughly advertised and written up since the days of "Adirondack Murray" and poor Marc Cook that no extended description is necessary. Its elevation is similar to that of the Carolina and Georgia resorts, varying in the settled portions from 1000 to 2500 feet above sea-level. Its evergreen forests were originally so dense that the region was formerly known as the "Great North Woods," but the lumber vandals and the relentless railroads have recently been pushing their work of landscape marring and general devastation to such an extent that the country promises to become a wilderness in fact as well as in name. It posesses a remarkably porous soil, is utterly free from malarial taint, the scenery and surroundings are still surpassingly beautiful, and within the past ten years its natural advantages have been widely recognized and extensively supplemented by professional as well as non-professional enterprise and skill. The climate is uneven and unreliable, the temperature occasionally fluctuating as much as forty or fifty degrees in less than twenty-four hours. Taken one year with another, it averages decidedly bracing, in short, rather too much so for delicate constitutions or advanced cases. Game abounds, and for such as enjoy it and can give themselves over to a semi-sporting life, the Adirondacks offer an interesting and hygienically desirable field.

The White Mountain regions of New Hampshire are similar in many respects to the Adirondacks. Both are better adapted for the climatic treatment of asthmatics, dyspeptics, and sufferers from hay-fever, than for tuberculous patients or rheumatics. Both are gradually, but surely, becoming less and less desirable as invalid-retreats, and more and more popular as summer-resorts for professional sports, social adventurers, and such folk, from the larger cities. Nevertheless, many cases of pulmonary disease have been wonderfully benefited, when not permanently cured, by becoming permanent residents of "The Wilderness."

Minnesota and the Dakotas have had some repute as climatically favorable to tuberculous patients and dyspeptics, but now can hardly be compared with the numerous more desirable sections of this climatically varied and resourceful country.

Colorado has been and still is a Mecca for tuberculous patients, asthmatics, and some other classes of invalids, thousands of whom have realized gratifying relief, with a goodly number of apparently permanent cures, through a temporary or permanent residence on some of the high plateaus of the mountainous, mid-continental region. Nearly a quarter of a century ago, after several years' residence in what was then the Territory of Colorado, after studying its characteristics and resources, I said of its climatic and other advantages as a health resort:[1]

"Colorado, as a whole, occupies the topographic center, and in fact as well as figuratively, is the summit of the continent. Taken in detail its different localities present a great variety of elevation, ranging from 4000 feet, in the Arkansas valley, to 10,000 feet, and more, in the mountain parks. . . . As to what altitude, other things being equal, is most favorable for chronic invalids of the classes mentioned, this undoubtedly depends very much on the nature of the disease, the age, temperament, and habits of the patient, and the stage of advancement of the malady, whatever it may be. In some cases of asthma the higher the elevation resorted to the more speedy and perfect the relief. Occasionally, inveterate cases fail of substantial aid until they ascend to some of the mountain towns, a residence in the valley, as everything outside the mountains proper is here termed, only ameliorating the severity of the paroxysms. On the other hand, cases of advanced pulmonary disease, at the altitude of Georgetown—nearly 8000 feet—often prove speedily fatal, which at Pueblo, on the Arkansas—4500 feet—would steadily improve, or at least live in comparative comfort for some years. . . .

"Mere altitude is not, however, as a rule, the primary thing to be considered, although its influence is more or less marked in every case. . . .

"The physiologic effects of a residence in high altitudes are to hurry respiration, consequently to accelerate the pulse, and to compel a rapid and immediate augmentation of the breathing capacity, in order to provide the requisite quantity of oxygen, from the rarefied air inspired. Hence the danger to those far advanced with tubercular consumption and to such as are subject to pulmonary hemorrhage, or some forms of cardiac disease. . . . The climate varies considerably with the altitude and with the varying topography of the country. Lying as it does in that happy mean of latitude—37° to 41°—between the extreme temperature-ranges of the Northern States and the enervating heat and humidity of the Southern, the winters of this region are mild, comparatively little snow falling except on the mountain ranges, and the summers are remarkably cool and bracing. There is about a month of each season during which, in the valley country, the mercury at midday ranges as high as at New Orleans; but one needs to keep on hand, in July, about the same clothing as is required at Christmas; and there are not half a dozen nights in the whole season when a pair of blankets to sleep under are in any degree uncomfortable. In the mountain town, gloves and light overcoats are in demand, even in dog-days. . . .

"Consumptives in the first and second stages may come to this continental summit with assurance that whatever a tonic climate, natural hygienic surroundings, pure air and water, good food, grand scenery, romantic adventure, and perpetual sunshine can do for an invalid, here awaits them."

To-day this sounds florid; but the lapse of more than twenty years has not suggested any serious questioning of its enthusiasm; and at the time, at the instigation of one of the trans-continental railways, the paper from which the foregoing extracts are taken was submitted to the *Denver Medical Association*, for approval or criticism, and was by that body unanimously endorsed as a fair and not

[1] Colorado Gazetteer, Denver, 1871, p. 107, et seq.

overdrawn statement; whereupon (without my previous knowledge or consent), a million or more copies were published in pamphlet form, and distributed throughout the East and in Europe. Proprietors of sanatoria and invalid hotels have not yet ceased to use its substance as basis stock for much of their advertising matter.

But notwithstanding the general truthfulness of the picture, the same drawback referred to in connection with the climate of the Adirondacks exists in Colorado, but in a lesser degree. In other words, it is, for many patients, a decidedly heroic resort. To realize its benefits in the fullest degree the patient needs to be still sufficiently robust to live out of doors in all seasons, to camp, fish, shoot, or botanize in the mountains, or to herd cattle on the plains, and sleep on the ground, wherever night or a fit of drowsiness overtakes him. To go there to be housed in an overheated and over-upholstered hotel in Denver, Colorado Springs, or Manitou, with a hundred others similarly afflicted, is little better than would be the same fatal routine if pursued in New England or New York.

Omitting any mention of Texas, New Mexico, Arizona, and numerous other localities which have some desirable features as health-resorts, the most unique and unquestionably best "all round" American climate, that of Southern California, remains to be considered.

In these days of trans-continental railway building and sharp traffic competition, it ought not to be a fact that remoteness should in any case be synonymous with obscurity; yet the distance from the populous centers has unquestionably prevented both the laity and the profession from acquiring other than a very vague and inadequate knowledge of the most peculiar, and at the same time, in all its features, the most inviting and sanatory climate for invalids, as a class, that has yet been made known on this continent. It may be fairly questioned whether anything in Europe can boast of such a combination of favorable qualities, with so few objectionable ones.

Lieutenant Emory, who accompanied the invading army of General Kearney, in 1846, called attention to "the superb physical health of the Californians" he met, as indicated by their "white teeth, and the blood tingling in the cheeks of their orange-colored faces."

Michler was struck with "the superbly-formed native women" he saw in this region, "their bodies as straight as an arrow."

Blodgett asserts[1] that:

"The elastic atmosphere and bracing effects of the Pacific climate constitute a striking difference from those of the Eastern States. Whether due to the absence of humidity alone is not clear; but, whatever the cause, it is a notable practical feature. . . .

"The interior valleys, where the heat is excessive, are similar to the cold coast also, and there is no climate which is not the reverse of enervating in its whole extent. . .

"All residents concur in pronouncing it more favorable to physical and mental activity than any they have ever known, from whatever quarter they have come."

Standing on the shores of San Diego Bay, Professor Agassiz exclaimed: "I have seen many lands; this is one of the favored spots of the earth."

Helen Hunt Jackson, who dwelt for some time in this Pacific coast edition of Eden restored, and made one of its secluded mountain gorges the scene of one of her most interesting romances, aptly described the favored valleys of Southern California as an island on land, so completely is the region insulated from the climatologic conditions which immediately surround it. She adds:

"Climate is to a country what temperament is to a man—Fate. And the word 'climate' is simply a statement of bounds defined according to the obliquity of the sun's course relative to the horizon—in other words, the slant of the sun. The tropics are tropic because the sun shines down too straight. In the temperate zone the sun strikes the earth too much aslant. There are a few spots on the globe where the conditions of the country override these laws and do away with these lines of discrimination in favors. Florida, Italy, the south of France and of Spain, a few islands, and Southern California complete the list."

General Greely, formerly chief of the United States Weather Bureau, in an instructive article, after describing the qualities that may be said to constitute an ideal climate,[1] adds:

"There is possibly one place in the United States where such conditions obtain, a bit of country of about forty square miles at the extreme southwestern part of the United States, in which San Diego is situated; but even here, perhaps once in two or three years, the sultry blasts of the Mojave Desert pass over the low mountain range and parch this favored district."

Brown,[2] discussing the climatic resorts of three continents, after having spent the best part of a lifetime in travel and observation, commits himself to this enthusiastic opinion:

"For those who are simply delicate, or inherit a tendency to consumption, I know of no country where I should regard the chances better for fair health and a prolongation of life than a residence in Southern California."

Charles Dudley Warner, in a work entitled "*Our Italy, or the Riviera of the United States*," published by the Harpers, expresses himself with even greater enthusiasm:[3]

"Any description would fail to give the charm of existence here; restlessness disappears, but there is no languor or depression."

[1] Climatology of the United States, p. 200.

[1] Scribner's Magazine, April, 1888.

[2] Harper's Monthly, November, 1887.

[3] Our Italy, New York, 1891.

He is of the opinion that the summer climate is quite as favorable and desirable as that of winter, for both pleasure-seekers and invalids, and emphasizes the fact that the winters are so mild that one is not obliged to expend the best part of his vitality in a six months' battle with the elements, as is the case in so many parts of the East. He adds some comments which it will be well for medical men as well as invalids to make careful note of:

"It is impossible to give an Eastern man a just idea of the winter of Southern California, who while gazing on gardens laden with tropical plants clothed in their rich and luxuriant foliage, or on the date and banana ripening in the bright sun, and on the strawberries of his warm months, which here are being gathered in mid-winter, cannot understand why he needs an overcoat . . . To the Easterner coming here with the expectation of finding the proverbially warm climates of the tropics nothing but disappointment will result. Health does not demand either the summer heat of the East or the great artificial heat of the houses of those regions, which usually is raised above 75° F. . . . The temperature of winter that has been found most congenial to either well or sick has been the temperature of from 55° to 60°; and with such a temperature, fogs, mists, or rains are in no way harmful, even to the invalid. As observed, this temperature is not an agreeable one for those accustomed to extremes, and many will perpetrate the blunder of housing themselves before a hot stove in a close room; the wise will simply clothe themselves properly in warm woolen garments, protect their feet with sensible shoes, and breathe the cooler air."

Contrasting the habits of the Chinese and Americans, he continues:

". . . But in this regard—how to weather the weather—we can learn something from that (the Chinese) nation . . . Their houses are open, and like the South American, the Chinaman will never sit in an apartment with closed doors. Draughts and air-currents affect neither the Peruvian, Colombian, nor the Chinese mandarin. . . . There is one thing that the barbarian will not do, however—something our Americans are continually doing, with great persistency—cram their guests' lungs full of foul and over-respired air. People should not forget that it is all-important to keep the body warm—something that can be done with appropriate clothing—but that if we wish to be well and keep healthy we must breathe fresh air, and that air of a temperature of 55° or 60° is not too cold for breathing purposes, even if disagreeably cold to the body surface."

Lay testimony might be multiplied indefinitely, and it is often more indicative of the real characteristics of a particular climate or locality than some professional descriptions. Professional evidence, however, is not wanting.

Dr. Remondino, of San Diego, has spent nearly a quarter of a century in the region, and has written extensively of his experiences.[1]

As coming from a keen observer, eminent as a physician as well as a writer, some climatic aphorisms and brief descriptions from Dr. Remondino's work will be found to fully corroborate the enthusiastic opinions of lay observers already cited:

"Equability and ventilation, and not altitude are the real factors in affording immunity from phthisis.

"Southern California is generally sought for its balmy, aseptic air, genial atmosphere, and invigorating climate. . . . Violets and invalids require a different locality and atmosphere.

"This portion of California has its climate modified by the marine currents. . . .

"Heat is brought to the American coast by two currents—the Kuro-Siwo or Japan stream, and the great circular North Pacific drift-current. Cold is imparted from the colder waters coming from the many cold, deep ocean currents with which the Pacific abounds.

"The effect on the climate produced by this peculiar condition of the ocean water is to give it a constancy of temperature.

"The generality of the soil is of disintegrated granite, and very sandy and porous . . . Such a thing as soil moisture cannot exist. . . . Always being dry, the soil is very warm."

Referring to temperatures, he states that:

"In the ten years from 1876 to 1885, inclusive, 3653 daily observations recorded show that on no one day during the ten years did the mercury remain below 40° more than one or two hours; on not a single day did any unusual warmth continue more than a few hours, the highest minimum for any day being only 70° on five of the 3653 days.

"Out of the same 3653 days there were 3560 days on which the mercury did not fall below 40°, 3533 days on which it did not rise above 80°, 120 on which it rose above 80°, 41 above 85°, 22 above 90°, 4 above 95°, and only one day on which it rose above 100°. The lowest maximum for any day was 52° on 4 of the 3653 days.

"It is temperature that has kept civilization within certain geographic limits; it is temperature—and that alone—that allows of free ventilation, which is the real and only safeguard against phthisis. . . .

"Perfect ventilation is impossible where the rigor of the climate and sedentary occupation require that all of the cold, external air be excluded and all of the internal warmth of the rooms be retained, that the occupants may be in temporary comfort. . . .

"To fully carry out that perfect ventilation which is an imperative necessity to health and life, *the nature of the climate must be such as will allow it to be done in an automatic or self-adjusting manner, as otherwise it will not be done;* living in unventilated apartments becomes such a habit that when once established it is hard to eradicate. The stupefying and life-slowing effects of a foul and vitiated, close atmosphere seem to become, after a time, a part of the physical existence and a necessity with many; so much so that they become positively uncomfortable in fresh air.

"*In Southern California it is never necessary to close the houses, either to exclude the heat of summer or the cold of winter.* . . . . Families have lived, my own being among the number, for several years, with wide-opened windows, without awnings in summer or fires in winter, in the greatest of comfort, showing the ease, practicability, and comfort with which free and constant ventilation can be practised in this climate."

The same author in an article in the current (October, 1893) number of the *California Magazine*, adds a summary of advice:

"I am often asked what part of Southern California is best adapted to certain individual cases. This is, of

[1] The Mediterranean Shores of America. Philadelphia: The F. A. Davis Co., 1892.

course, largely a matter of personal and contitutional election. . . . . Rheumatic, neuralgic and laryngeal cases do better in the interior. . . . . Convalescing cases recovering from some long and tedious illness, and those suffering from nervous prostration, insomnia, or the debilitated stages of advanced pulmonary tuberculosis, are more benefited by the bracing air of the coast. . . . . The region offers every conceivable variety of temperature met with in either Europe, Africa, or Asia. The shores of Africa and the interior of the great Sahara; the highlands of Spain and the low hills and plains of Italy; the abrupt Apennines and the more gigantic Alps of either Switzerland or Bavaria; the heather-clad hills of Scotland and the sunny islets of the Greek Archipelago—all have here their counterparts. Yet with this strange diversity, the climatic factorial influence of the great heated desert and the vast cold ocean combine to produce a homogeneity that makes California unique among the known regions of the world."

Briefly, the climatic features of this region may be thus summarized:

1. A mild, equable, and yet bracing temperature.
2. A warm and porous soil.
3. Pure, aseptic air and freedom from miasmata.
4. Preponderance of sunshine, light rainfall.
5. Absence of high winds and storms. (Thunder and lightning are practically unknown.)
6. Ready access to a great variety of elevations, ranging from sea-level to 10,000 feet or more, as desired.
7. A varied and beautiful landscape.
8. A soil-productiveness unparalleled in any civilized quarter of the globe.
9. A combination that, as a whole, constantly and automatically tends to enhance the respiratory function and to stimulate and develop the breathing-habit.

Finally, as it is now practically admitted that nearly all chronic constitutional perversions and morbid diatheses—pulmonary tuberculosis, lithiasis, the neuroses, chronic nephritis, diabetes, and fatty and other degenerative processes—are the direct or indirect sequelæ of persistent and habitual suboxidation, and that this result depends chiefly upon a passively-induced want of normal robustness in connection with the breathing-habit, the present status of biologic and physiologic science warrants the assumption or prediction that, by increasing the quantity of tidal air habitually and ordinarily utilized to twice or three times its present average volume, thereby securing a proportionately increased degree of automatically constant oxidation throughout the entire physical organism, the race might be rendered self-protective and practically immune as regards many, if not all, of these insidious, universally prevalent, and, at present, almost hopelessly fatal forms of disease, and the expectation of life, on which mortality-tables are now based, materially and almost indefinitely increased.

WASHINGTON HEIGHTS, WEST 181ST STREET.

THE SPINAL CORD IN POTT'S DISEASE.[1]

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IN considering the pathology of the nervous symptoms of caries of the spine we need pay but little attention to the morbid anatomy of the bone-disease. We may define Pott's disease pathologically as an osteitis, usually tuberculous, of the bodies of one or more vertebræ, resulting in caseous necrosis and caries. Rarely the primary cause is syphilis and not tuberculosis. The bone-disease may be secondary to inflammation in neighboring structures. Finally, sometimes in septicemia secondary abscesses occur in the vertebræ. It is a curious fact, and one for which so far as I know no satisfactory explanation has been given, that this osteitis is most likely to occur in the dorsal region. The explanation sometimes offered that this region is the most exposed to injury does not explain, for the causal relation of trauma to Pott's disease has not as yet been positively proved.

The conditions mimicking Pott's disease—malignant tumors of the vertebræ and aortic aneurism—we may dismiss without further mention.

The first question for our consideration is: Upon what do the nervous symptoms depend? Are they caused directly by the angular curvature and the consequent narrowing and angulation of the canal? In the great majority of cases, no. It is, of course, true that if a carious vertebra suddenly breaks down and fragments of bone are driven forcibly against the cord, or if the odontoid ligament gives way, we will find sudden, severe, and even fatal nervous symptoms; but ordinarily, even if the diameter of the vertebral canal be diminished by the sudden breaking down of a vertebra, the cord slips behind the projecting bone and escapes very serious compression. In by far the greater number of cases the nervous symptoms are due to inflammatory changes in the dura causing pressure upon, and later, organic changes in the cord and nerves. So soon as the osteitis has progressed far enough to cause a breaking down of the posterior surface of the body of a vertebra and ulceration of the posterior common ligament, and consequent communication with the loose tissue filling up the epidural space, inflammatory changes due to direct contiguity of tissue arise in the latter and soon appear on the external surface of the dura, ending in a pachymeningitis. When this process has progressed far enough to produce pressure upon the cord this organ, according to Hoffa,[2] becomes edematous

[1] Read at the October meeting of the Orthopedic Section of the College of Physicians, Philadelphia.

[2] Albert Hoffa: Transactions American Orthopedic Association. Fifth Session. Washington, 1891.

from the interference with the flow of lymph and a stasis of the fluids of its tissue. The retained lymph acts not only mechanically but also as a poison, producing at first softening of the cord with, at the same time, an increase of the connective tissue, which, when sufficient, causes sclerosis. The same is true of the peripheral nerves at their points of exit from the dura. Edema is of necessity present. As to the poisonous effect of retained lymph we need further investigation.

As the time at which communication is established between the diseased bone and the canal is, as one might say, accidental, or, rather, depends not so much upon the amount of bone-tissue diseased as upon the situation of disease in the body and the direction of its progress, it follows, as is well-known, that nervous symptoms, spasmodic abdominal pain, numbness or tingling in the extremities, alteration of the knee-jerk, paralysis, or indeed all of the symptoms referable to the cord, may precede deformity or, indeed, any sign of bone-disease. The reverse is also true. There may be severe bone-disease and marked angularity without nervous symptoms.

The liability to nervous symptoms varies with the region of the spine affected. Bouvier[1] found only five paraplegias among thirty-eight cases of lumbar caries; Coudroy de Lauréal only one paraplegia among fifty-nine similar cases. Among fifty-six cases of dorsal caries, on the contrary, Bouvier observed thirty-eight cases of paraplegia, and Coudroy nineteen cases among seventy-seven in the same locality. The reason of this greater frequency of paraplegia in dorsal disease is not difficult to find. The dorsal region is the most liable to severe deformity, and to abscesses with pent-up pus, and is normally the narrowest part of the spinal canal.

The inflammation of the dura may be either simple or purulent. If simple, the external surface of the dura is reddened, with here and there patches of lymph. So long as this condition persists there are few or no severe nervous symptoms. If the inflammation be purulent, there is pus, caseous material, and organized inflammatory products. The thickening varies much, sometimes amounting to half an inch, and may surround the cord, or occupy one side, or be irregularly distributed, with nodular or even fungoid growths scattered here and there. Adhesion to the bone soon takes place. Commonly, the thickening and adhesion occur first and are greatest in the anterior portion of the dura, and hence motor cord-symptoms usually precede sensory ones. The pachymeningitis is usually confined to the neighborhood of the diseased bone, but may extend far beyond its limits. Ordinarily, the inner surface of the dura and the pia-arachnoid escape inflammatory changes till late in the disease, even though the cord is seriously disabled. This being so, we are able to say that the changes in the cord are not due to a tuberculous process in it, but to the mechanical effect of pressure and possibly the irritant effect of retained lymph, as mentioned. When the pachymeningitis invades the inner surface and the pia-arachnoid, another element is added to the destructive process.

The pressure of the thickened dura affects not only the spinal cord but also the peripheral nerves at their points of passage through it, producing Gowers' "root symptoms" and "cord symptoms." Which set of symptoms predominate will, of course, depend upon whether pressure is greatest on the nerve-roots or on the cord, and also upon which part of the periphery of the cord is most involved. As a fact, "root symptoms" vary much in intensity. There may be simply pain in the course and distribution of the affected nerves or spots of anesthesia, sometimes painful areas, muscular wasting and palsy and, curiously enough, sometimes herpes zoster. The cord symptoms, as I have said, will vary with the varying portions of the transverse area affected, and of course with the variation in the longitudinal position of the disease.

These symptoms are too well known to need repetition. In disease of the three upper cervical vertebræ, however, there is at times a curiously anomalous distribution of symptoms. Instead, as might be expected, of paralysis of all four extremities, there may be palsy of the arms, without any affection of the legs. According to Brown-Séquard the explanation is that the motor tracts for the arms are more superficial than those for the legs, and hence are earlier involved in a lesion advancing from the periphery. On the other hand, Vulpian maintains that just the opposite is true, or in other words, that in the cervical region the nerve-fibers for the arms have already entered the gray matter of the cord, while those for the legs are still in the lateral columns. He claims on this very account that the arm-fibers will be more compressed, owing to the less density of the gray matter as compared with the white.

At autopsy in an advanced case the nerves are found much decreased in size, being sometimes mere threads. Under the microscope we find an increased amount of connective tissue, with an absence of many nerve-fibers, and sometimes with enlarged axis-cylinders. It is not strictly true to call this condition an inflammation. It is rather a degeneration. The cord ordinarily shows gross disfigurement at the seat of meningitis and curvature. It may be flattened, cylindrical, or indented. Angulation may be so marked as to persist after the removal of the cord from the canal, even in cases which at the time of

[1] Quoted by Mary Putnam Jacobi. Keating's Cyclopedia of the Diseases of Children, vol. iv, p. 646.

death presented no symptoms. I know of no case in which there was complete severance of the cord. Shaffer[1] refers to an autopsy in which a portion of the eighth dorsal vertebra was found impinging directly upon the cord, through which it had so nearly cut its way that only a slender thread remained.

On microscopic examination in severe cases a peculiar interstitial myelitis is found. The newly formed connective tissue, which at first contains cells, later becomes changed into a dense reticulum, which much increases the hardness of the cord. The nerve-fibers are to a greater or less extent completely degenerated, though usually some are left with narrowed myelin-sheaths, and a few may be normal. The anterior part of the cord is likely to be most affected. The gray matter cannot be distinguished from the white, and the ganglion-cells have lost their processes and are shrunken and atrophied. Scattered everywhere are found masses of myelin, granule-corpuscles, and corpora amylacea. The walls of the small vessels are often thickened by a growth of spindle-cells arranged concentrically around the lumen, making it smaller or obliterating it entirely. This cutting off of the blood-supply of course increases the damage to the cord. The changes are greatest at the point of greatest pressure, but extend for variable distances up and down the cord. Above and below the transverse myelitis are found the usual ascending degeneration in the posterior columns and descending degeneration in the lateral pyramidal tracts. But secondary cord-changes in this disease do not always follow the usual law. According to Gowers and Charcot there may be an ascending inflammation of the lateral pyramidal tracts with consequent symptoms referable to the arms. Anomalous symptoms are also produced occasionally by inflammatory foci scattered here and there through the cord or even the medulla. Again, if the nerve-roots are affected before the cord the pressure-neuritis may invade the cord, causing streaks of sclerosis in the posterior columns. In the cases in which there is a sudden paraplegia not caused by the direct pressure of a dislocated piece of bone, hemorrhage has occurred either in the inflamed membranes or, more rarely, in the cord.

The processes by which the cord regains its functions are not altogether clear. The nerve-fibers that suffer from pressure insufficient to cause organic change, and even those in which the myelin-sheaths are greatly narrowed, will of course resume their functions on removal of the pressure. But can a nerve-fiber in the spinal cord, if completely degenerated in a part of its course, be regenerated? In peripheral nerves regeneration certainly sometimes takes place. Quite as certainly it does not happen in the spinal cord if the destructive lesion is sudden. Apparently, however, if the lesion be a slowly increasing one, as ordinarily it is in Pott's disease, axis-cylinders may regenerate. It is also curious that there may be complete restoration of function in a cord the transverse area of which at the seat of former disease is half or less than half that of the normal.

[1] Transactions American Orthopedic Association, vol. iv, p. 156.

THE INDICATIONS AND PREFERABLE METHODS FOR MASTOID OPERATIONS.[1]

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WHEN and how shall we operate in mastoid disease? Among American surgeons there is a wide diversity of opinion, especially as to what symptoms constitute a positive demand for opening the mastoid process. My observations leave the impression that the majority of surgeons are too conservative, both as to the time selected for surgical interference and the extent of the operation. While conservatism is an admirable trait in a surgeon, so long as caution is not merged into timidity, so far as I have seen its influence in this class of cases it has proved detrimental to the patients. I have seen fatal results follow: (1) Refusal to allow the operation; (2) after operations too long deferred, and (3) after operations that were performed too timidly to remove all of the diseased tissue. I have never known death to occur as a direct result of the operation itself.

We all appreciate the gravity of this undertaking, but in view of the fact that the disease demanding it is far more dangerous than the surgical measures for its relief, greater freedom of action and boldness of methods will add luster to the records of our work.

When shall we operate? The weight of experience and the testimony of trustworthy authorities favor early operations. If we wait for the very grave symptoms—fever, rigors, vomiting, vertigo, widely diffused pains in the head and neck; thickly furred, tremulous, and indented tongue; delirium, etc.—the chances of success are discouragingly diminished. I do not believe it is wise to postpone an operation until these symptoms occur, unless the patient is suffering from some other affection that renders recovery hopeless, or unless the prostration is so great as to preclude the possibility of survival.

There are tentative methods of treatment that are proper and promising in incipient mastoiditis unattended by urgent or dangerous symptoms. I have

[1] Read before the Mississippi Valley Medical Association, October, 1893.

often subdued periostitis by the use of counter-irritation, compresses, and the free extraction of blood with leeches and warm, wet applications. Many cases of mastoid disease may be cut short by this early active treatment. I have seen very acute attacks with intense pain relieved permanently in this manner. If there is also acute inflammation of the middle ear, additional leeches should be applied about the tragus, and an opiate should be given. If decided relief does not occur within twenty-four or forty-eight hours we should not hesitate to make Wilde's incision, or if this does not relieve, to open the bone.

This statement, in my opinion, embodies as great conservatism as our duty to the patient justifies. Obviously, any rules that may be laid down must be more or less elastic. For example, a case recently came under my observation in which the mastoid had been opened. Another swelling appeared above the auricle, with fluctuation. I advised opening it, and pus was liberated. Subsequently the patient was brought to me with this opening almost closed, but pus could be pressed from it. There was severe periostitis involving the whole mastoid, temporal and zygomatic regions. I advised free incision extending through the two previous openings, but one of my assistants, Dr. Hollinger, desired to try the effect of pressure with antiseptic compresses. This treatment alone dispelled all the threatening symptoms in less than two days.

I have formulated the following six rules by which I have been guided in deciding the perplexing question of an operation:

The mastoid process should be opened

1. When there is acute inflammation of the bone that resists palliative treatment.

2. When repeated swellings and abscesses occur.

3. When there is bulging of the posterior and superior wall of the meatus with suppuration of the middle ear.

4. When there is a fistula.

5. When there are severe pains in the same side of the head as the diseased ear, and resisting all other treatment.

6. When a foul otorrhea cannot be cured by any other means.

These rules may be termed conservative, and whatever deviation we may indulge in ought to be at once favorable to the operation and the welfare of the patient. Too great temporizing favors sinus-thrombosis, septicemia, brain-abscess, and meningitis.

What method of operating shall we pursue? I have usually performed Schwartze's operation, but have also used Stacke's method, with gratifying results. The latter is one of the most difficult, delicate, and dangerous of operations.

As we cannot know the extent of the pathologic process before entering the bone, it does not appear to be advisable to decide in advance upon any special method of procedure save one: remove all dead and diseased tissue. Whatever method does this does best. Stacke's and Bergmann's operations have the advantage of affording the greatest accessibility to the tympanum, so that if it is necessary to remove necrosed ossicles or diseased tympanic tissue it can be done with greater facility and thoroughness, but it is best to guard against collapse of the walls of the meatus and resulting stenosis by inserting a tube in the canal. Schwartze's operation is sufficient for most cases. It is much simpler and leaves a less extensive wound. The operations of Wolf and Küster through the meatus I have never ventured upon, for fear of not possessing sufficient skill to remove all of the diseased tissue through such a narrow field of vision.

There are a few points in this connection worth mentioning, for they are closely related to a successful issue. The best illumination is gained by the use of light reflected from the mirror on the operator's forehead. This affords a decided advantage over direct light. It is more intense, can be thrown into the opening of the bone in every direction, and there are no shadows to obscure the field.

It is safer not to close the wound entirely until it has healed from the bottom. When the interior has filled with cicatricial tissue up to the surface of the outer table it is safe to allow it to close. I have had good results after closing the wound completely at the time of the operation, but it is certainly not so safe a plan.

The best dressing is one of dithymol diiodid (usually sold under the name of aristol) sprinkled over the wound-surfaces, covering them entirely. Then iodoform-gauze should be placed lightly in the mouth of that part of the wound chosen to remain open. It should not be packed down to the bottom of the wound so as to crowd any discharge inward, but it should extend just far enough inward to keep the cutaneous tissues from closing over the superficial opening in the bone until the deep wound is well. Dithymol diiodid has two excellent qualities: It is the best cicatrizant we possess, and it has the additional advantage of being to some extent an anesthetic. While iodoform is irritant and toxic and boric acid sometimes produces pain, dithymol diiodid soothes and heals without any ill effects.

After stitching that part of the wound to be closed and dressing the open mouth for drainage, the whole is covered with iodoform-gauze, absorbent cotton, and a net-bandage. This bandage is made of the common white mosquito cloth which, as used in the Northern States, is sized with a preparation

of glue. The roll of bandange is dipped in water just before applying, until it is wet through. Then the water is squeezed out and the bandage is applied as usual. When it dries, the layers adhere together firmly, so as to retain their position for many days in succession without any attention.

But the most perplexing question before us is: When shall we open the bone? My conviction is that the earlier the operation is performed the better our records will be. We should operate while the condition of the patient favors resolution instead of dissolution, and all dead and diseased tissue should be removed.

The safest and simplest rule by which I have been generally guided is this: When there is a fistula or a group of unyielding symptoms of serious sickness undoubtedly due to the ear-disease, penetrate the bone. Unlock the vault that holds our treasure and the sufferer's doom. Give vent to the pent-up furies of disease, as Æolus loosed the struggling winds. A merciless and unrelenting foe has stormed the fortress of the brain—the citadel of life. No truce is safe, and now heroic action only conquers man's great foe.

70 STATE STREET.

THE RELATION OF THE PATELLAR TENDON-REFLEX TO SOME OF THE OCULAR REFLEXES FOUND IN GENERAL PARALYSIS OF THE INSANE.[1]

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THE following observations are given as expressive of some of the most important and most certain of the findings that have been obtained in a clinical study of the ocular symptoms of general paralysis of the insane as observed in a large proportion of the male inmates of the State Hospital for the Insane at Norristown, Pa. Although tentative in a measure, and not to be found to equal degrees in each individual case, yet, by reason of a combination of a large series of similarly related groupings, these observations may be justly offered as showing the relationship existing between the patellar tendon-reflexes and the ocular reflexes in this disease.

With such provisions, and with the hope that these studies may serve as inducements to others for similar research, the following formulations are herewith offered:

1. In some of the cases in the second stage of the disease, especially when the patellar tendon-reflexes were unequally exaggerated, there appeared to be an irregular and unequal spastic innervation of the two irides, causing irregularities in pin-point pupil-forms.

2. In a few cases, especially in the third stage of the disorder, when the patellar-tendon reflexes were unequally diminished, and the pupil-size was small and the pupillary shape somewhat irregular, the iris seemed to be but little acted upon by any powerful mydriatic.[1]

3. In many cases, especially in comparatively young subjects in the third stage of the disease, when the patellar tendon-reflexes were unequally diminished, there appeared to be an unequal paralytic innervation of the two irides; the pupillary dilatation manifesting itself at times, though not as a rule, in the eye with the greater amount of objective optic-nerve-head degeneration and retinal change.

4. In a few cases (especially in men of middle life) in the third stage of the disorder, when the patellar tendon-reflexes were markedly diminished and when the ataxias were quite pronounced, there were marked temporary asymmetries of pupillary form, one pupil often being quite small and irregular for several examinations, whilst its fellow was large and ovoid or oval.

5. In quite a number of cases, especially in the advanced stages of the disease, when the patellar tendon-reflexes were either unequally exaggerated or diminished, there was a failure of the irides to respond to even major degrees of light-stimulus; this being true not only for those subjects exhibiting a true spastic myosis, but more especially shown in those instances in which, with partial dilatation of the pupil, mydriatics failed to act.

6. In many instances, especially in the older cases, when the patellar tendon-reflexes were, as a rule, unequally diminished or even lost, there was not only failure of iris-response to the strongest light-stimulus carefully thrown upon the retina, but when obtainable, the irides seemed to fail to react to the various coarse and rough subjective and objective procedures necessary to be used in order to evolve both separated and associated efforts for accommodation, and associated efforts for convergence.

7. In some instances in which ciliary muscle-innervation could be satisfactorily obtained, both the spastic excitation and the paralytic innervation at times found by subjective reading tests and objective study with the retinoscope seemed to be in direct ratio to the patellar tendon-reflexes as the iridic changes.

8. In quite a number of cases in which there was

[1] Read before the American Ophthalmological Society, July, 1893.

[1] In several such cases there were marked depressant effects, with grave constitutional symptoms, produced by single instillations of $\frac{1}{40}$ and $\frac{1}{20}$ grain of neutral sulfate of atropin in the conjunctival cul-de-sacs.

marked inequality of the pupils, with more or less want of reaction of the irides to light-stimulus, the patellar tendon-reflex on the side of the larger pupil seemed to be the one the more greatly diminished.

9. In a number of instances, especially during the very earliest stages of the disease, when the patellar tendon-reflexes were beginning to lessen to unequal degrees, there often appeared momentary secondary ataxic dilatation of the pupil during exposure to strong light-stimulation.

10. In many cases, especially during the second stage of the disorder, when the patellar tendon-reflexes began to become irregular and inconstant, pupillary inequalities as expressive of unequal iris-innervation and action became more and more constant.

CLINICAL LECTURE.

RHINOPHARYNGEAL AND NASAL NEOPLASMS.[1]

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I. THE CURE OF A RHINOPHARYNGEAL FIBROSARCOMA BY ELECTROLYSIS.

GENTLEMEN: It is not often that one has the pleasure of showing to a class a case of cured nasopharyngeal fibrosarcoma, as I have the opportunity of now doing. Those of you who attended my clinic last year may remember this young man, twenty-three years of age, who came here during the winter with a face much deformed. He had been suffering for ten or twelve years with a tumor in his nose and pharynx that bled on the slightest touch. It looked so terrible that I was afraid to attack it, and I referred the patient to the surgical clinic, with the suggestion that the upper maxilla be resected and the tumor be removed by direct access, because in our indirect methods through the nose and mouth it seemed impossible to circumscribe it sufficiently. The operation was refused as unjustifiable, because it did not hold out enough hope of success, and the case was returned to the throat-clinic. Here, he would have been dismissed with palliative measures, for I had not the slightest idea of curing him; and but for the reproachful language of the physician who brought him, Dr. Harweter, of Allentown, Pa., I should not have tried it.

A tumor of this kind is very peculiar. For some reason or other unknown, in young adolescents just before puberty, usually in the male sex (for the growths are more frequent in the male), a neoplasm begins to form in the periosteum in front of the basilar process of the occipital bone—that is, at the base of the skull, either to one side or the other of the median line, rarely, if ever, in the center. Thence it extends into the pharynx, sometimes along the cervical vertebra, but much more frequently along the sphenoid bone. It forms attachments around the posterior outlets of the nose and the internal pterygoid plates of the sphenoid and the nasal septum. It becomes bound to the pharyngeal outlet of the Eustachian tube, passes into the nasal passages, and forms attachments to the turbinate bones and to the ethmoid bone, passes along the petrous portion of the temporal bone, penetrates into the zygomatic and the sphenomaxillary fossæ, passes through the sutures which unite the cranial bones and the bones of the face, then through the natural fissures and foraminæ that transmit the nerves and blood-vessels, and thus it gets into the antrum, into the orbit, and into the cavity of the skull—all the time pushing soft and hard tissues aside to make room for itself. Sometimes it stops under the dura, and sometimes eventually penetrates through the membranes into the brain. These neoplasms are generally known as nasopharyngeal polypi, and they are very terrible forms of tumor. They do not always take the full course described, though usually more or less of it. They often get into the nose and the accessory cavities, the maxillary sinus and frontal sinus, and deform the face peculiarly, the distortion being known as frog-face—a characteristic feature which this man had in a marked degree, and of which, to a certain extent, he still shows the evidence.

The prognosis in these cases is very bad, except in recent and circumscribed growths. They require surgical treatment. The rule is that the patient succumbs, whatever the operation. Some terrible operations have been performed for removal of these growths—preliminary operations, serious in themselves—simply to gain direct access to the neoplasm. Sometimes the nose is detached from the superior maxilla and turned up. Sometimes the soft palate is slit; and sometimes both the soft and the hard palates are divided. Sometimes the superior maxilla is resected, or the two superior maxillæ are separated in front through the hard palate. When direct access is attained the growths are removed as thoroughly as practicable with forceps, with scissors, with the snare, with the cautery, with saws, or by whatever methods seem most effectual. Under almost every method of operation they are likely to recur, and when they do recur they grow more rapidly than they did at first.

The method pursued in the present case was as follows: First, in the clinic, our chief, Dr. Jones, and his assistants removed as much of the growth with the electric incandescent snare as they could. They passed a platinum wire through a canula, and carried the loop as near as possible to the base of the growth. Then they tightened the wire and passed the electric current through the snare, and so continued tightening the snare and passing the current until the mass seized was cut off. When they had done as much of this work as possible, the patient was referred to me, and the remainder of the work was done mostly in my office, and chiefly by electrolysis; that is to say, by passing the currents of electricity through certain portions of the mass, an electro-chemic decomposition was set up in the tumor, as near as possible to its multiple points of attachment. You can understand by your knowledge of the growth and extension of these tumors that it is hazardous simply to take hold of them with strong forceps and pull. You may pull some important structure away with them, and thus do irreparable injury; you may even enter the cranium. More than one surgeon has seen his patient die on the table in the very effort he has made to prolong that patient's life. So you must be very careful when you try to pull such a growth away with the forceps. Elec-

[1] A Clinical Lecture delivered at the Laryngological Clinic of the Jefferson Medical College Hospital, Friday October 13, 1893.

trolysis produces an electro-chemic decomposition of tissue. If you put two electrodes from the respective poles of an electric battery in any liquid, or in a tissue largely composed of liquids, the result will be a decomposition of the liquids, the oxygen and the acids going to the positive pole, and the hydrogen and the alkalies to the negative pole. This fact is sometimes utilized for medical purposes, to get remedies into certain tissues by passing a properly arranged electric current through them. The tissues of the body are largely composed of water, and the oxygen goes to the positive, and the hydrogen to the negative pole, where the gases escape in bubbles of froth.

Now what is the result of destroying the water in the animal tissue? You dry that tissue up. The tissues exposed to the current become hard. The nutrient material cannot pass through this hard layer to the body of the tumor, and so its nutrition is thus far destroyed, and that part sloughs off, just as a limb is seen to do in a case of senile gangrene. This result is physical and physico-chemic. It is not due to any occult power in the electric force. In our patient this is what we did with our electric current, sometimes using plates, and sometimes needle-points, as electrodes at the different operations, thus destroying the paths of nutrition and favoring sloughing. As the sloughing progressed we pulled the dead tissue away with forceps. When we used plates of metal on the surface of the mass, we could see the part melting under our instruments as snow melts under the sun, although not as rapidly—very slowly indeed—but we could distintly see the foam of the oxygen and hydrogen as the tissue gave way under the electric action. This method of treatment is difficult in growths of this kind, on account of the complexity of the attachments, and many times have I spent over an hour in the procedure, becoming so exhausted that it was impossible for me to do any more work during the remainder of the day. We had in all between twenty and thirty sittings. The result was, that toward the end of June there was but little growth left, and that little seemed sloughy. I told the patient to go home and report in October. He reported yesterday, and on examining the parts I was glad to find every vestige of the growth gone. Several particles sloughed out after he went home. He can now breathe freely through both sides of his nose, and he does not now speak as though he had a hot potato in his mouth. He has gained ten pounds in weight. I have had several successes of this kind, but none of them in a case as extensive and apparently hopeless as was this. I have never known a case in which the tumor was taken away by resection of the upper jaw in which there was no recurrence. This method is both much the more thorough and also much the more difficult. The knife, sometimes even when you think you are cutting through healthy tissues, leaves more or less diseased tissue, and then, of course, another tumor grows. Again, in cutting, sometimes you carry disease to healthy tissues on your knife. I have never seen any success equal electrolytic operation through the nose and mouth, provided you take the time and the trouble. Of course, a single operation of an hour would have removed a portion only; here we had thirty or forty hours of work. The result has been excellent. When you look at the man's pharynx you will see a few rugged points, and a band across the pharyngeal outlet of the left Eustachian tube, probably due to an adhesion between the soft palate and the vault of the pharynx, a result of the operative procedures. This I will remove at some later date. Finally, let me remind you that it has occasionally happened that operations from the exterior have had to be abandoned, and yet the injury done to the parts has been such that sloughing took place and the tumor sloughed out, but you hardly dare operate with such a direct object in view.

II. TUBULAR EPITHELIOMA OF THE NOSE AND MAXILLARY SINUS.

Two years ago to-day I operated upon this patient, before the class, for a tumor of her nose that was difficult of access. In order to avoid an external operation and scarring, which is not desirable in a female, I turned up the upper lip and separated the nose from the jaw, pulling the nose upward up on the forehead. As you notice, the cicatrix is barely visible. I found that the growth was not confined to the nose, but extended into the antrum or maxillary sinus. We removed all the morbid growth with the forceps and scraped the parts, and then allowed the nose to fall in place. The parts healed kindly, and for three or four months the patient was completely relieved of severe pain and great difficulty of breathing. On examination by the pathologist of the hospital the growth removed was found to be an adeno-carcinoma or tubular epithelioma, and the probability of a recurrence was explained to the patient before she left the hospital. Since that time she has been here on several occasions for removal of recurrent growths, and her health has gradually become much impaired. During the last six months she has been here four times, probably as many as in the preceding eighteen months. That is the clinical history of these growths after evulsion or exsection; a relief of several months after operation, then a recurrence, and after that relief not so long, repetition of operation, and so on, the intervals between relief getting gradually shorter. We will again try to relieve her of her troublesome growth, but in the long run it will cause her death.

I purpose to operate in this case with a device which was employed by Hippocrates, and which I recommend you to use in cases of soft tumors, especially when you are not provided with surgical instruments. It is a string on which are tied a number of swabs. Two strings are passed through the nostrils into the mouth. The two ends of one are tied in front of the lips as a reserve in case it may be required to carry a tampon behind the palate to restrain hemorrhage. The oral end of the other is tied to the kitestring of swabs, which are then pulled forward through the nose, carrying with them a lot of this soft tissue. The end of the string of the first series of swabs is tied to another series and the procedure repeated. You will have greater success with this, perhaps, than with cutting instruments or with forceps.

III. PEDUNCULATED PAPILLOMA OF THE UVULA.

This is a case of papilloma of the uvula, a few examples of which we have every year. You notice a long pedicle, more than an inch in length, hanging from the tip of the uvula and supporting a cauliflower growth. This growth originally existed on the uvula perhaps, but

in efforts at deglutition it has gradually been drawn down and down until the mucous membrane has become elongated into this long pedicle. The treatment will consist in simply snipping it off with a pair of scissors, at the tip of the uvula, as you will watch Dr. Jones, our chief of clinic, do for us. The uvula itself, you see, is somewhat elongated. Should it not retract sufficiently after being freed of its growth, say in a month or so, we will exsect a portion in your presence.

IV. MULTIPLE MYXOMA OF THE NOSE.

This is a case of myxoma of the nose. If you look in the nasal passages of this woman, you will see globular pale-reddish masses on either side, which, we judge, are nasal polypi. These are very troublesome cases. They are usually the result of what is known as catarrh. In some cases of chronic catarrh in the mucous membrane of the nose you will find on the surface polypoid thickenings which grow into tumors, varying in size from that of a grain of rice to that of a large oyster. These tumors are gelatinoid and technically termed myxomata. Usually they are pedunculated. Only rarely do you find but one; there are generally a number of them —sometimes twenty or more, and sometimes one extracts a large handful and wonders whence so many could have come. After you have removed the larger ones you will, as a rule, find a number of smaller ones in the neighborhood, and unless these, too, are removed they grow rapidly and give you an opportunity to operate again and again. The only method of curing the affection is by removal. Sometimes these growths project into the pharynx, whence they are removed by traction and torsion, after having been grasped in the bite of, forceps or caught in a snare. Occasionally they project from the nostril. It is considered barbarous to remove them with the forceps, but it is not barbarous if correctly done. The old-fashioned method was to take the forceps and put it in the nose without looking at the interior, and then to feel around with forceps until the growths are grasped. Sometimes the turbinated bone was caught. But if light is reflected into the nasal passage so that the polypi can be seen, and a pair of delicate forceps is passed upward until you get at the pedicle of the growth, after pressing and holding it tight for half a minute, a turn is given before traction is made, and the polypi will come away without causing a great deal of pain. You can bring the pain to a minimum by painting the parts to be attacked with a solution of cocain. The method to be adopted to-day will be to pass a snare through a canula, carry it up to the polyp, guide it as far as possible along the pedicle, and then tighten the snare; probably Dr. Jones. who is now operating in this manner without cocainization, will cut through the growth, but I prefer to twist the snare around just as I would the forceps, and to pull it away, a procedure that brings away a portion of the pedicle and also probably a portion of the mucous membrane from which it arises. If this is done there will be no recurrence. The parts are then to be cleansed of blood and you go on and on, so far as possible, attacking the remaining growths until you get away all that is possible. These tumors are hygroscopic and swell up during wet weather. If the pedicle from which you take the polyp is left, it is better to cauterize it so as to destroy the point of implantation. An electric cautery is the best, but if not this, silver nitrate, chromic acid, or any other cauterizing agent you are accustomed to using, will do.

There is a dirty method of destroying polypi which is often successful. I do not want you to resort to it unless you have no instruments, although it is a very simple one. It consists in the injection with a syringe, of the tincture of the chlorid of iron into the parts, as near as possible in the pedicle. The polyp drops off in a few days, and it is usually blown out of the nose by the patient. The iron makes more or less of a magma and you have some trouble getting rid of it. I find that injections of weak solutions of alcohol and distilled witch-hazel also tend to repress the disposition to reproduction of these growths.

Occasionally these polyps are found on the upper turbinated bone, occasionally on the lower turbinated, rarely upon the septum; but in the majority of cases they are found on the lower surface of the middle turbinated bone, so that you will be more likely to strike them there. Sometimes they are far back and then you have to operate through the mouth with the aid of the mirror. It is much better to perform operations in dry than in wet weather. While I have been talking Dr. Jones has removed three polypi, which I pass around; on one you see the pedicle and a portion of mucous membrane. That polyp will not recur.

V AND VI. LYMPHOID ENLARGEMENTS AT THE VAULT OF THE PHARYNX.

We have here two cases of lymphoid enlargement in the pharynx, or as they are commonly denominated, adenoid growths. When in the streets you will notice a great many children and some grown people presenting a peculiar facial expression, with the mouth open and the nose compressed. Being unable to breathe through the nose, they breathe through the mouth. This produces a dryness of the throat and more or less soreness. We find in these cases that the lymphoid tissue existing naturally in the vault of the pharynx is hypertrophied This lymphoid tissue is the same as that of the tonsils, the glands of Peyer in the intestine, and certain glands at the base of the tongue. When this structure is slightly inflamed and in a state of hypersecretion, masses of mucus trickle down over the pharynx, and we have the condition known as nasopharyngeal catarrh, which is often nothing else than chronic inflammation of the lymphoid tissue at the vault of the pharynx, the third tonsil as it is sometimes called, or Luschka's tonsil. This structure has been known for many years. The best preparations I have ever seen were made by the famous anatomist Hunter, more than one hundred and fifty years ago, and can be seen in his museum at Glasgow or Edinburgh, I forget which; but it is only recently that we have recognized the morbid condition to which I direct your attention. Sometimes the patients are unable to hear well, and have pain in the head. Sometimes they are unable to concentrate their attention on their work. Sometimes we have a general hypertrophy of this tissue and in the central portion a depression filled with mucus. There is another form in which there are vegetations, sometimes covering the posterior nares so as to interfere with breathing, or covering the orifices of the Eustachian tubes and interfer-

ing with hearing. When they are pressed upon by the fingers they feel like a mass of worms. There is no medical way of treating them. All patients with growths of this kind are much improved by giving them internally iron iodid, or hydrated calcium chlorid. At the same time these growths should be removed. This is best done with the forceps. Pass the instrument up behind the palate, open the blades, close them so as to seize the mass, turn and pull. Or you can use forceps with cutting edges and cut the growth away in mass or piecemeal, as will be done for you by Dr. Jones in another case now being etherized. In some instances, as we shall do here, the growths are felt for with the finger, and if they are soft they can be scraped away in a great measure by the finger during the examination, as it were. Sometimes these growths bleed very much when removed, and you must be careful as to the position of the patient. I am not in the habit of using a systemic anesthetic, no matter how young the children are, unless there be an extreme nervousness which cannot be overcome, and there be urgent need for hurry. In many cases I do not even have to use cocain. The patients assure me that I do not hurt them. The growths are not sensitive. The pain experienced in their removal is produced by the physician running his instrument up against the vault of the pharynx and scraping it in his movements, a procedure which is very painful. In hospital practice we cannot take the time to do things as cleverly and neatly as at home. You must remember that blood does not run up hill, and that therefore the head should be depressed lower than the shoulders. Should you operate after the method of my friend Dr. French, of Brooklyn, give ether, wrap the patient in a blanket, put him in a chair which is to be tilted backward, and have him held. Keep the mouth open with a mouth-distender. With a mirror, throw in the light, and then pass up the forceps, in the same manner as I do, without the resort to ether. Be careful that the blood does not run down the pharynx into the air-passages. If there is a great disposition to bleed, have the patient turned over sidewise, and see that the head is lower than the shoulders. In some cases we throw the head entirely back over the edge of the table, and in that way the blood runs out of the nose and mouth of the patient, and does not get into the windpipe. After-treatment is rarely required, but sometimes there is some secondary hemorrhage.

It is wonderful the amount of relief gained by these procedures. Stunted children will sometimes grow more in a year after their respiration has been relieved, than they formerly did in three or four years. I read an account a day or two ago in the *London Journal of Laryngology*, of a lad of seventeen who was but five feet three inches in height, and light in proportion, while his brothers were six feet in height and proportionately heavy. Some hypertrophied adenoid tissue was removed from the pharynx and his large tonsils excised by Mr. Jakins, who reports that two years afterward the patient was brought to him, being five feet ten inches in height and weighty in proportion. That was a marked case. I have told many times the parents of a miserable puny child that it would become so much improved in appearance in a short time that even distant members of the family would hardly recognize it if existing pharyngeal adenoids were removed, and in a few months the prediction was verified.

The causes of these growths are not known. I believe that they are usually congenital. Properly removed they never recur. The oldest cases operated on by me with cutting forceps occurred in 1870, in two sisters who have long since grown up, and when I heard from them a number of years ago there had been no recurrence. Other cases I have seen at intervals of ten and fifteen years or more after operation, and there has been no recurrence. In order to be sure that you have taken everything away you must, some time after the operation has been performed, examine the parts carefully with your finger and with the rhinoscopic mirror.

CLINICAL MEMORANDA.

A CYSTIC TUMOR OF THE BLADDER IN A STILLBORN CHILD.

BY W. L. RANSOM, M.D.,
OF ROCKFORD, ILLINOIS.

I WAS called at 4 A.M., August 24, 1893, to attend Mrs. B., in confinement at full term. She was a well-formed, healthy primipara, twenty-two years of age. Nothing had transpired to mar the normal progress of gestation as far as she knew, save a little fright produced by a flying squirrel during a visit in a neighboring city in the second month. The animal sprang upon her hand as it rested on her lap, startling her greatly. This incident, however, made no great impression on her mind and speedily passed away.

Premonitory pains began at midnight and parturition progressed favorably and rapidly, notwithstanding the absence of amniotic fluid. The birth of the child, a female, was completed at 6 A.M., two hours after my arrival.

Motion had been felt distinctly up to the last month of pregnancy, the mother said, but had become less and less noticeable during the last four weeks.

After the head had been expelled there seemed to be an obstruction of some sort preventing the exit of the remainder of the body, and considerable force was required to extract it, the perineum being considerably and unavoidably lacerated.

The funis was about the neck of the child, but when released she made no cry; nor, indeed, was there any indication of attempted respiration.

As long as the cord continued to pulsate, efforts were made to initiate the respiratory act. These were continued for about half an hour without the slightest result or impression. The child never breathed or seemed to make any effort to breathe, as though this power were absent entirely.

In the hypogastric region I noticed a tense, elastic protuberance of considerable dimensions, which must have been the cause of the difficulty experienced in the final stage of delivery, and I was forced to conclude that this tumor had to do with my failure to induce respiration.

The funis having ceased to pulsate, I separated the little one from its mother and proceeded to make a thorough examination of the body. The child seemed to be fully developed and well formed, weighing nine

pounds. There was a deformity of the right ear, the pinna having a peculiar backward-pointed form, as though a point in the upper third of its posterior margin had been forcibly drawn backward, giving rise to a lancinate appearance of this appendage.

As already mentioned, the hypogastric region was greatly distended by an elastic tumor which seemed to fill all of the abdominal space between the sternum and the pelvis, but was especially prominent and projecting in its median line near the umbilicus.

My first incision extended from the pubic region to the sternum, directly over the most prominent portion of the tumor. On opening the peritoneum I found that nearly the whole abdominal cavity was occupied by a multilocular cystic tumor. It seemed to spring from the pelvis, to which it was firmly attached by means of three large firm processes of fibrous tissue, which severally continued beyond or through the pelvis to the inner aspect of both femora and to the front of the pelvis, forming in these locations considerable tumors.

The abdominal tumor was fully as large as the child's head. By its anterior aspect it was firmly adherent to the mesial line of the abdominal wall; in all other directions it was non-adherent, save at its point of origin in the pelvis.

It consisted of one small and three large cysts in one structure, but not communicating with each other. The small cyst was about the size of a hickory-nut, had thin fragile walls, and was filled with a creamy fluid. The large cysts had thick and tough walls and were distended with liquid, a portion of which resembled clear, and the rest turbid, urine.

On further inspection the left kidney was seen to be as much as ten times larger than the normal one on the right side. The pelvis and its calices were correspondingly dilated. The ureter was at first glance mistaken for the descending colon, such was its size; passing from the kidney it terminated in the posterior wall of the most inferior of the three large cysts. From this and from the appearance of the contents of the cysts, I concluded that this interesting tumor must have been of vesical origin. The descending colon and the rectum were nowhere constricted; meconium was observed to pass shortly after delivery.

The external genitalia (those of a female) were normal in size, position, and general appearance. The external orifice of the urethra was patulous, but a short distance within the passage was occluded, apparently from the external pressure of the extraneous tissue belonging to the tumor. The urethra was not impervious, for a probe could, by gentle force, be made to insinuate its way past the constriction into the lowermost of the three compartments of which the tumor was composed. The urethra was, however, practically a closed passage, the constricting fibers of this growth being sufficiently rigid to prevent the evacuation of the contents of the tensely distended bladder.

No vestige of the internal organs of generation was found.

Passing to the liver, I found it also to be of unnatural size, pushing its way above the tumor far up into the thoracic cavity.

Extending my incision upward along the left side of the sternum to the clavicle, I found the heart also to be greatly enlarged, but there was no lung-structure to be found in the thorax, save minute strips of lung-colored tissue packed away in the uppermost recesses under the clavicles. I no longer wondered at my futile efforts to induce respiration. The tumor, liver, and heart had crowded up and prevented the development of the less resistant lung-structure.

TOXIC SYMPTOMS FROM SEIDLITZ POWDERS.

BY J. S. TRIPLETT, M.D.,
OF HARRISONVILLE, MO.

NOT long ago I called upon a physician who was convalescing from an attack of malaria, and while in conversation he related an attack of severe vomiting and retching and depressing after-effects following the ingestion of a Seidlitz powder. The depression was so marked that he feared a fatal termination, and medical aid was summoned. Emesis was provoked by titillating the fauces with the finger, when severe vomiting and retching ensued for some time, after which the functions gradually but slowly became normal. The powders were not thought of as having been the cause of the trouble, although the man said that they tasted differently from any he had previously taken.

In the same house was a young man, a relative of the physician, who was also sick and was ordered a Seidlitz powder, but took only half of the powder in solution. In ten minutes violent vomiting and retching set in, with cramps in the stomach and a burning sensation in the esophagus, together with a feeling of general depression. This man was able to go about his business in a few days.

Two or three days later, at night, I was called to see A. D. R., about thirty years old. I responded at once, and found the patient in bed, vomiting and retching at intervals of eight or ten minutes, with moist skin, slow and weakened cardiac action, and as he expressed it, "so sick he did not know what to do." Nausea was very marked. The femoral adductors were cramped, and the man spoke of a repeated desire to defecate. The voice was somewhat subdued. The result of my examination did not account for his condition, and I set about getting more facts. On inquiry, I learned that the man had been feeling badly all of the afternoon, and on returning from his work got a Seidlitz powder, ate supper, and then, at about 8 P.M., took the powder, with the results related.

Remembering the other two cases, my diagnosis was now clear. The next morning I went to the drug-store from which the powder was obtained, and, on inquiry, found that the powders taken by the physician and the young man were also purchased at this store. I related the cases to the druggist; he could not account for the symptoms, as he said that he had compounded the powders according to the U. S. P.

The blue paper was obtained from a printing-office, and he thought that possibly the untoward effects were due to arsenic in the paper. I obtained one of the powders for qualitative analysis, and on passing H_2S gas, generated in Marsh's apparatus, through the contents of the blue paper, dissolved in four ounces of pure water, a heavy, orange-colored precipitate of Sb_2S_3 (antimonious sulphid) was thrown down. The presence of so much

antimony explained the alarming symptoms in the three persons who took the powders.

In all probability the mistake was made in compounding the powders, antimoni-potassic tartrate being used instead of potassium bitartrate.

MEDICAL PROGRESS.

The Importance of Early Attention to the Disability Caused by Infantile Paralysis.—At a recent meeting of the New York Academy of Medicine DR. A. B. JUDSON raised the question whether patients disabled by infantile paralysis should not be submitted more entirely and more early to orthopedic treatment. After the child has passed through the stage of onset, and ergot, electricity, and massage have produced their legitimate effects, after the lapse of perhaps eighteen months, the remaining deformity is often found upon analysis to be rather a disability. For example, in a case in which the knee cannot be completely extended there is no deformity when the patient is sitting, but when he stands up the apparent deformity is due to an inability to extend the knee. It would have been easy to have prevented contraction of the hamstrings by providing for their repeated elongation by complete extension of the knee. Cases sometimes occur in which shortening of the tendons begins, in a manner not well understood, at a very early stage, before simple desuetude can be fairly charged with being the cause of the mischief. Thus it is that the prevention of muscular and tendinous shortening should receive attention on the part of the early observer of the case. Thus if the knee is kept extended when walking is attempted, not only are the muscles and tendons kept in normal elongation, but the general welfare of the limb is assured. If the knee is stiffened mechanically the pressure of the weight of the body in standing and the repeated concussion of the limb as the foot strikes the ground in walking and running will improve the tardy circulation; but beyond this, and better than this, will be the development of unused muscular fibers and special groups of muscles, by whose action important motions will be acquired which would have been impossible if the limb had remained in suspension. In order to keep the knee firmly extended under the weight of the body in standing and walking, and to give use and development, as far as may be, to the fragmentary muscular system of the limb, suitable apparatus is required. A good general rule in the treatment of deformity in a growing child is to keep the part as nearly as possible in the desired shape as much of the time, day and night, as is practicable, so that the increment shall be on the right side of the dividing line between the normal and abnormal. Not only should the part be kept in as nearly the normal shape as possible, but it should also be given as wide play to the functions of motion and weight-bearing as the crippled condition of the limb will allow. From the very earliest attempt to walk or to make use of the muscles and joints which are imperilled by the cord-lesion, extraneous assistance should be afforded. It should not be said, off-hand, that the child is too young. The first and repeated question should be: Is the child not yet old enough, or is he not already giving sufficient evidence of a desire to make use of the questionable muscles and joints to make assistance desirable or necessary? When efficient treatment is begun it is easily continued. The process is slow and prosaic, but the benefit cannot be overestimated.

Intra-intestinal Injections of Hot Water for the Relief of Shock, Particularly from Hemorrhage.—RUTHERFORD (*Rhode Island Medical Monthly*, vol. i, No. 9, p. 458) has reported the case of a boy, nine years old, who was accidentally shot in the thigh. There was not much bleeding from the wound, but the leg soon became badly swollen and discolored. Examination showed that the swelling and discoloration arose from an extravasation of blood into the tissues, and it was decided to cut down upon and tie the bleeding vessel (the femoral artery), as the almost bloodless condition of the boy forbade the performance of amputation. In the course of the anesthetization the pulse began to grow weaker, and doubts were felt as to the possibility of proceeding with the operation. In the hope of stimulating the patient a quart of hot water containing a small quantity of salt was pumped into the rectum by means of a catheter introduced deeply and connected with a Davidson's syringe. The pulse at once grew stronger and the skin assumed a more healthy appearance. The pulse again weakening after the lapse of fifteen minutes, two quarts of hot saline solution were injected into the rectum, the tube being introduced for a distance of seventeen inches. The presence of the fluid in the bowel caused an appreciable fulness of the abdomen, which rapidly subsided as the fluid was absorbed. Toward the completion of the operation an injection of two quarts of water had again to be made, the tube being introduced for a distance of twenty-three inches. The pulse now became strong, and the patient presented a better appearance than at the beginning of the operation. He lived for fourteen days, ultimately dying from septic infection and exhaustion consequent upon gangrene.

Intra-uterine Infection of the Fetus with Enteric Fever.—JANISZEWSKI (*Münchener medicinische Wochenschrift*, 1893, No. 38, p. 706) has reported the case of a woman, thirty-five years old, who aborted in the third week of an attack of enteric fever in the eighth month of pregnancy. The child died in the course of five days, and upon post-mortem examination numerous consolidated areas about as large as hazel-nuts were found in both lungs, together with slight enlargement of the spleen. The connective tissue in the neighborhood of the esophagus presented several hemorrhagic infiltrations. The remaining organs displayed no appreciable lesion. Inoculations of culture-media with sections of tissue from lungs, spleen, kidneys, a mesenteric gland, and a portion of the ileum near the ileo-cecal valve, all resulted in the development of organisms that corresponded in size and form with the typhoid-bacillus of Ehrlich, and which presented characteristic appearances by further cultivation upon various nutrient media.

Traumatic Rupture of the Heart.—O'BRIEN (*British Medical Journal*, No. 1711, p. 843) has reported the case of a woman who fell from the side of a ship a distance of eight feet into the water, coming into contact with the propeller of the vessel, which was in motion. Removed from the

water and conveyed to a hospital, life was found extinct. The face was blanched, and the general bloodless appearance of the body suggested death from internal hemorrhage. In the left pectoral region was a patch of ecchymosis, with a transverse fracture of the sternum at a point midway between its articulation with the fourth and fifth costal cartilages. On more careful examination the gladiolus was found to be fractured, the pericardium lacerated, and the heart ruptured through both ventricles.

THERAPEUTIC NOTES.

Malakin is the name of a new synthetic product of the laboratory for which anti-rheumatic, antipyretic, and anti-neuralgic virtues are claimed, without the dangerous secondary effects that have been observed to attend the use of some of the other drugs of the same class. The product is allied to phenacetin, being the salicyl-derivative of paraphenetidin, and may be designated salicyl-phenetidin. It appears in the form of small, light-yellow, fine needles that melt at a temperature of 197.6° F. It is insoluble in water, with difficulty soluble in cold alcohol, but fairly soluble in hot alcohol. It is insoluble in alkaline carbonates, but dissolves with a yellow color in sodic hydrate, forming a sodium-combination. Dilute mineral acids decompose the body, with the formation of salicyl-aldehyde and paraphenetidin. Experiments upon animals demonstrated not only that the drug exerts no depressant effect upon the heart and the circulation, but also that it has an antipyretic action. The drug was next tried in fourteen cases of acute rheumatism, including a number of severe cases, and in every instance with good results. It was given in doses of from 60 to 90 grains daily. The drug was administered in 48 febrile cases, including 13 of enteric fever, 7 of croupous pneumonia, 19 of various types of tuberculosis, 7 of erysipelas, and 2 of scarlatina. In several cases the temperature was not notably influenced. In the majority the decline was gradual and not excessive, and unattended with sweating. The drug acted well in 12 cases of neuralgia and headache. The following conclusions have been reached: 1. Malakin is an agreeable and certain remedy in the treatment of acute articular rheumatism, and has the advantage of being free from unpleasant secondary effects; so that it may be advantageously substituted for salicyl-preparations in susceptible patients (women and children), and in cases in which there is an idiosyncrasy to salicylic acid. 2. The drug acts slowly and gently as an antipyretic, without giving rise to alarming symptoms, so that it may well be administered to debilitated patients and to those with impaired or defective circulation. 3. It may be given for a long time without injury in cases of neuralgia and habitual headache.

Parenchymatous Injections of Salicylic Acid for Inoperable Carcinoma Uteri.—Having been struck by the peculiar affinity of salicylic acid for epithelial cells, BERNHART (*Centralblatt für Gynäkologie*, 1893, No. 39, p. 900) was induced to employ the drug in cases of inoperable carcinoma of the uterus. He used a 6 per cent. solution of the acid in 60 per cent. alcohol. A special form of syringe was employed, with a curved hollow needle of small caliber. Not more than half a dram was injected at every sitting, a few drops being introduced in from seven to ten different places. The sittings were repeated at intervals of three or four days. The results were rather encouraging, notable retraction taking place at the site of injection, while after a number of injections had been made a favorable influence upon the amount and odor of the discharge, upon the pain, and upon the hemorrhage was observed. When ulceration existed cicatrization was stimulated. In some patients the injection caused a certain amount of transient pain, and in some it was followed by slight elevation of temperature.

For Gonorrheal Vaginitis.—The vagina is first cleansed with cotton, then irrigated with a 1:1000 solution of mercuric chlorid, and the vaginal vault is packed with tampons saturated with the following solution:

℞.—Potassic hydrate . . .	0.20
Methylene-blue . . .	10.
Alcohol	15.
Distilled water	200.—M.

The vagina is then filled with dry tampons. After two days the packing is removed, and the vagina is irrigated with a 1:1000 mercurial solution. Two glycerin tampons are now introduced, and replaced by fresh ones a day afterward. The treatment is completed by irrigations and dry tampons continued for another week.—D'AULNAY, *Bull. Gén. de Thèr.*, No. 18; *Wiener med. Presse*, No. 39.

For Pernio.—

℞.—Zinci oxidi crud.	15.
tere exactissime direct. cum . .	
Glycerini	45.
adde	
Lanolini	40.—M.
Ft. ung.	

S.—Apply nightly. An application can be made also by day, the excess being removed with a cloth.—STERN, *Ther. Monatsh.*, No. 8; *Wiener med. Presse*, No. 36.

Large Doses of Oil for Lead-colic.—From a small series of observations, COMBEMALE (*Gaz. Méd. de Paris*, 1893, No. 38, p. 447) concludes that given in doses of about six ounces at a time, olive oil acts as a deobstruent and sedative in cases of saturnine colic. In order that such quantities be retained, the sensibility of the stomach should be obtunded by the previous administration of cocain, menthol, or other local anesthetic. Given daily in a dose of two ounces the oil causes subsidence of the nervous symptoms.

For the Night-sweats of Pulmonary Tuberculosis.—

℞.—Acid. salicylic.	℥jss.
Glycerin.	f℥iij.
Alcohol.	f℥iv.
Aquæ destil.	f℥j.—M.

S.—Thirty drops hypodermatically at bedtime, four or five nights in succession.—BERNHEIM, *Sem. Méd.*, No. 38; *Prager med. Wochenschr.*, No. 37.

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will upon publication be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary to elucidate the text, illustrations will be provided without cost to the author.

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SATURDAY, NOVEMBER 11, 1893.

CHILDREN OF THE STATE.

THE expense of the care of the defective classes is becoming enormous and burdensome. The criminals in the United States, while in prisons and reformatories, cost fifteen millions of dollars a year. The other defectives cost a sum not possible to calculate, though we may safely say that it is very large. From no other class of society are the defectives recruited in such large numbers as from "the children of the street." These neglected products of modern civilization are from necessity petty thieves, beggars, and sympathy-mongers. They graduate into every class of vice and crime, and, at the best, become a serious menace to the physical, mental, moral, and commercial interests of society.

Sentimentalism, religious enthusiasm, and pseudo-charity have perpetuated the monastic idea in the orphanage. Children have been and are huddled together in cities and towns, and supported, washed, fed, and drilled, doctored, and amused, with a mortality of 200 or 300 per 1000 a year, all in the name of charity. The children that have once tasted liberty prefer the drygoods box to the white-counterpaned bed and its attendant institutional life. They prefer gutter life and freedom, to clean clothes, baths, steam-heated rooms, balls, bats, and croquet, inside stone walls, even though garnished with a half-week of well-supervised and orderly maneuvers under trees, by the side of rivers and brooks, in a strange, clear light and air. The dreadful death-rate in these orphanages, the loss by runaways, and the loss of incorrigibles sent back to the street, make altogether a pitiable showing.

From this extravagant and heart-rending picture we turn to Australia for hope—a continent without an orphanage—a country without an orphan. The good work of two women, in a rational and plastic state, has found a home and parents for every orphan. Each waif is taken to a receiving home, where it is cared for until a country home is found. The local volunteer societies canvass their neighborhoods, and send to the central *Children's Committee of the Destitute Board* the names and circumstances of such families as they have found where children may be placed. The children's committee selects that home which it judges best adapted to the development and care of the child in question. The foster-parents receive a stated sum each week for the care of the child and for proper clothing. This sum averages $1.25 per week. No child is placed in a family that is too poor. In such families the child might suffer hardship. When of school age the child must be in school. The schoolmaster makes a quarterly report to the children's committee of the attendance and general condition of all children of the State. The schools of Australia have no long vacations. The police-officer visits the child at definite intervals. The local volunteer committee looks after its care and culture, and jealous neighbors often lend a hand in watching the growth and education of these happy children, and reporting their findings to the children's committee in anonymous letters. The village health-officer also reports on any sickness he is called upon to treat, and an inspector of the committee visits every child twice a year.

When the child is fourteen years old he begins to work, usually on the farm on which he has before lived. His earnings are placed in the Postal Savings Bank, and at seventeen or eighteen he goes out into the world for himself, an independent man. The State, at an expense of less than seventy dollars a year, has raised a man or woman to contribute to its aggregate wealth, and prevented the manufacture of a criminal, the subsequent ravages of his art, and the expense of court, prison, and reformatory for him and his pupils. The hysterical activities of the charity-mongeresses have incidentally been

avoided, and their energies diverted to occupations less destructive to life.

When a mother, with the help of a half-ration from the Destitute Board, can keep her child and a roof over her head, disregarding the bugbear of out-door relief so potent with us, this ration is granted. When she has two children, one ration is given, and a ration and a half for three, and so on. Babies are placed out where they are cared for by experienced country mothers, and only one or two in a place. The foster-mother is paid more for its care during the first nine months of infant life than afterward. Old people are cared for in the same humane manner, and our Southern continental civilization is not disgraced by institutions in which old people are huddled together in lifeless and childless prisons to wait for death.

It may seem strange that Australia, Tasmania, and New Zealand have so far outstripped us in this humane, charitable, and economic work of child-saving and the prevention of disease. In our cities the slaughter of children in "institutions" still goes on, the growth of our defective and criminal class still increases, the calls upon the thrifty and humane still grow importunate, but we are unwilling to learn. It were better to recognize at once that as civilization advances the functions of the State must advance into new fields. The care of the children can no longer be left to the church and the street. As society represented by the State must protect itself against enemies from without, so it must protect itself from the greater enemy that it is suckling within. It is unnecessary to point to the influence upon general morality which the daily observation of the life of the children of the street exerts upon the more fortunate. This depressed moral tone makes our political corruption possible. Hope lies not in restricting, but in extending political activity.

Two women, MISS CLARK and MISS CATHERINE SPENCE, destroyed the orphan-asylums of Australasia, robbed the continent of its orphans, and saved these colonies from a horde of criminals and dependents. Some good man or woman must raze every orphan-asylum and "home" in the United States to the ground. We have outlived them. We are too thrifty to keep them longer, pretending to perform a function they cannot fill.

The Children's Aid Society of Philadelphia has begun in the right way. Help it to extend its aid to all the waifs of Pennsylvania.

This is a proper work for the physician, and through the activity of our profession in preventing and curing the diseases of the State, we may hope that the standing, reputation, and good name of the doctor will be restored and properly honored.

MEDICINE AND STATE RIGHTS.

THE question of State rights is about as *living* to-day as ever in the history of this country. It comprehends, along with other things of divers complexions, the care of the general health. A suggestion of the complications that may arise in connection with this subject was furnished not many months ago in the East when an invasion of cholera was threatened. Within the past year there have been a number of adjudications on the authority of States to regulate the admission of articles of food. Now there comes a decision from the United States Circuit Court, W. D. Michigan, in the case of the M., St. P. and S. S. M. Ry. Co. *vs.* Milner, just reported (57 Fed. Rep., 276), of no little interest, touching upon State quarantine. The railway company brought suit to restrain the Michigan State Board of Health from enforcing the State Quarantine regulations, on the ground that the board was daily detaining and attempting to detain passengers on the Canadian Pacific Railway, with which it had a traffic arrangement, and prohibiting their entering the State until they had undergone the quarantine detention, and until the disinfection of their baggage. It was also complained of that this detention, examination, and process of disinfection of baggage was applied to all emigrants, irrespective of whether they came from an infected or healthy locality abroad, and without regard to their point of destination, and notwithstanding the fact that all of such emigrants and travellers had been, before such detention, inspected by United States officials detailed for the purpose. The rules and action of the Board of Health, it was contended, were in direct violation of the Constitution of the United States, in that they attempted to regulate and prohibit commerce with foreign nations, and were likewise in violation of an existing treaty between the United States and Norway and Sweden. The court, however, overruled the motion for a preliminary injunction, justifying its action by the application of established decisions. CHIEF-JUSTICE MARSHALL, one of the most distinguished jurists ever on the Supreme bench, recognized, it said, that the removal or destruction of infectious or

unsound articles was undoubtedly an exercise of the police power of the State, and an exception to the prohibition resulting from the exclusive power of Congress to regulate the operations of foreign and inter-State commerce, and that laws of the United States expressly sanction the health-laws of the several States. And CHIEF-JUSTICE TANEY expressly declared that "It must be remembered that disease, pestilence, and pauperism are not subjects of commerce, although sometimes among the attendant evils. They are not things to be regulated and trafficked in, but to be prevented as far as human foresight or human means can guard against them."

Both of these decisions have since been referred to with approval by the Supreme Court itself, in a case in which the distinction is drawn with great clearness and force between the exercise of its police power by a State and an attempt to legislate upon matters of inter-State or foreign commerce, which are exclusively within the power of the Federal Government. Moreover, attention was called to the fact that the Quarantine Act of Congress, approved February 15, 1893, expressly recognizes the validity of State laws, and in Section 3 requires the Supervising Surgeon-General of the Marine-Hospital Service to coöperate with and aid State and municipal boards of health in the execution and enforcement of their rules and regulations. Nor could the Court find anything in any existing treaty with Norway and Sweden in conflict with the institution or enforcement by any one or more of the States of this Union of quarantine-regulations. To the objection that passengers from non-infected countries and localities were detained, the answer was made that such detentions were, in the nature of the case, to a certain extent unavoidable; and passengers from such countries and localities might have become properly subject to detention by reason of having mingled with others who could communicate pestilence or disease to which they themselves had been exposed or subjected. An opportunity for examination and inspection was indispensable also. The objection that passengers who had certificates from United States inspectors were detained was also held not tenable. The States may exercise their police power according to their own discretion, and by means of their own officials and methods. The inconvenience resulting to emigrants and travellers from being halted and subjected to examination and detention at State lines is of trifling importance at a time when every effort is required, and is being put forth, to prevent the introduction and spread of pestilential and communicable diseases. Lastly, it was held that the costs and charges which were incurred in such quarantine-inspection might lawfully be imposed on the railway company as being incident to the business in which it is engaged.

SUCCESSFUL CELIOTOMY FOR PERFORATED GASTRIC ULCER.

IT is evident that the possibilities of antiseptic surgery have not been exhausted. To the numerous life-saving operations born of the present surgical era is to be added that of abdominal section in the treatment of perforation of the stomach secondary to ulceration. In spite of a certain amount of indiscriminate and perhaps unnecessary operation, there can be no question that many lives have been saved and much suffering averted by reason of the comparative safety and facility with which abdominal section can be performed if aseptic and antiseptic methods are followed. There are already on record a few cases of perforation of the bowel in the course of enteric fever in which life has been saved by promptly opening the abdomen, closing the rent in the bowel, and cleansing the peritoneal cavity.[1]

Another step in the same direction has recently been made, in that BARLING (*Birmingham Medical Review*, vol. xxxiv, No. 181, p. 129) reports the successful treatment by celiotomy of a case of gastric ulcer with perforation and peritonitis. The same treatment had been previously pursued in two other cases, but with an unfavorable outcome.

The first case was one of latent gastric ulcer in a girl, twenty-two years old, presenting symptoms of peritonitis, in which the abdomen was opened six hours after the onset of the acute manifestations. The source of perforation could not be found at the operation, and death took place twenty-four hours afterward. Upon post-mortem examination, a perforating gastric ulcer was found on the anterior wall of the stomach, rather nearer the cardiac than the pyloric extremity.

The second case occurred in a girl, twenty years old, with a previous history of gastric ulcer. Symptoms of peritonitis developing abruptly, the possibility of perforation was considered, and the

[1] See Weller van Hook, THE MEDICAL NEWS, November 21, 1891, p. 591.

abdomen was opened. At about the middle of the anterior wall of the stomach an opening, with indurated margins, was found. Five Lembert sutures were introduced with a good deal of difficulty, and the abdomen was flushed and closed and drainage provided for. Death took place thirty hours after the operation. Upon post-mortem examination, well-marked peritonitis was found, especially in and around the portal fissures, and about a pint of thin purulent fluid escaped from the cavity of the abdomen and pelvis. The perforation on the anterior wall of the stomach was effectively closed by the sutures, and adhesions had formed between the opposed peritoneal margins. A second ulcer, which had almost perforated, was found on the posterior wall.

The third case occurred in a domestic, twenty-nine years old, who was seized with abdominal pains, faintness, and vomiting. She had previously suffered from epigastric pain and vomiting, though there had never been hematemesis or melena. The acute symptoms had set in a day after the ingestion of a heavy meal, with a feeling as of something having given way within the abdominal cavity. Indications of peritonitis soon appeared, and a provisional diagnosis of perforation of a gastric ulcer was made. Under appropriate treatment the girl did fairly well for a number of days until pain was complained of in the left hypochondriac and lumbar regions, soon followed by the appearance of a swelling in the left hypochondrium. Under further treatment the symptoms again receded for a time, when, the condition of the patient appearing precarious, it was decided to perform abdominal section. An incision was made over the swelling in the hypochondrium and a small abscess-cavity found behind the stomach and evacuated. The patient doing badly after the operation had been in progress for about ten minutes, a drainage-tube was introduced into the abdominal cavity and the wound was speedily closed. Rather contrary to expectation, the girl did well. The progress of the case was complicated by the successive development of phlebitis in both legs, but recovery ultimately ensued.

Such a result as this, in connection with a condition that under any other plan of treatment is almost certain to be fatal, is, to say the least, encouraging, and adds new laurels to the credit of modern surgery and modern surgical methods. The wisdom of first passing a drainage-tube into the stomach through the orifice of perforation and evacuating any fluid present is pointed out, and considerable importance is attached to the employment of two tubes for drainage, the one placed *in situ* close to the perforation, the other introduced into the abdomen just above the pubes.

EDITORIAL COMMENTS.

The "Substitutor" and the Testimonial-writer. — A widely-spread advertising circular of a proprietary drug-preparation presents a picture of the substitutor cheating the father of a dying child. The father comes asking for the advertised cure-all. The substitutor is a drug-clerk with devilish leer, satyr ears, and mephistophelean horns. The legend given therewith is as follows:

We present on the opposite page a photograph of a modern nuisance of the vampire order. The smile on his infectious and brazen face poisons the very atmosphere as does the hated lupus tree, and his presence is the *shadow* of *death*. Unfortunately for the sick and the dying, this incarnation of evil lurks in drug-stores of doubtful reputation, and practises his arts and wiles upon his innocent and unsuspecting customers. In the picture before you a father has come in haste for a special remedy for his sick child. The mother, whose soul is filled with anxiety, is impatiently waiting his return with the medicine for her precious darling. The substitutor replies that he is out of it, but has something "just as good or better."

The parent hesitates, time flies, he is over-persuaded, he grasps at the substitutor's nostrum, and the chances are that the little one is doomed. The vampire substitutor lives upon the death of his victims. Is there any abyss too deep, any punishment too severe for the miscreant who will thus trifle with human life and love for the smallest gain? Room for the leper, room.

The literary and ethical excellencies of this remarkable product of the professional advertisement-writer are on the same level. If the substitutor's face is infectious, why doesn't the poor dupe catch the disease (of scoundrelism), and in the interests of dermatology we would like some further information about the "hated lupus tree."

But the laughter excited by this execrable stupidity is quickly transformed to disgust and indignation when it is remembered that not even the mephistophelean substitutor would ply his "vampire's" trade on the poor father if the poor father had only brought a physician's prescription. Would the sensible father of a dying child go to a drug-store for a "special remedy," or would he go to a physician? The advertiser's pamphlet is equal to the emergency—but only by implication, its most prominent claim being the published "testimonials of six thousand well-known physicians." Among these we notice two presidents of the American Medical Association, surgeon-generals, professors and professors, and professors, doctors galore, and fellows with as many as thirteen alphabetic titular tin-kettles to their tails, "M.R.C.S.I., L.R.C.P.I., L.S.A.," etc., world without end. Amen!

The Doctor in Politics.—It seems that in Buffalo, N. Y., things have reached such a pass, or such an *impasse*, that indignation has broken down the confines of

"schools" of medicine, broken down party-lines, and even broken down the natural disinclination of physicians to confine themselves to professional matters so far as public action goes. A despatch reads:

Both schools of medicine were represented at a meeting of the most prominent physicians in the city at the Academy of Medicine last night in the interest of good government. After speeches denouncing machine election-methods in this city, the doctors, with one or two exceptions, agreed to do everything in their power to influence their patients in behalf of good government, and adopted emphatic anti-machine resolutions. Still more unusual was this final resolution: "*Resolved*, That in so far as is compatible with our professional obligations we offer our services as watchers at the polls."

In Ohio the physicians, led by the noble enthusiasm of Dr. Culbertson and the *Lancet-Clinic*, are aroused and have gotten pledges from many of the candidates that they will, if elected, support the attempt to get a Medical Practice act passed by the Legislature. In no civilized country has the medical profession been so insulted and outraged by the hordes of quacks as in the past years in Ohio. We hope an end has been begun.

The Medical-belt Humbug in England was doing a thriving business. Owing to the usual complete control of the newspaper press by the quacks, through the bribery of the advertising department, it is a marvel that the *Pall Mall Gazette* should have taken up the exposure of the wretched fraud. But it did so, and was, of course, promptly sued for libel. But the humbug collapsed rather than meet the exposure of its affairs in court.

The shamelessness of the manager is shown by the fact that while steps were actually being taken to wind the company up, and after he himself had resigned the managership, he wrote to the newspapers proposing a medical commission to examine the company's patents and methods. This proposal was naturally scouted as absurd, as if he did not fear medical or scientific opinion, he could find ample opportunity of proving the efficacy of his belts, etc., by suing the *Pall Mall Gazette*, which openly courted an action for libel.

If there were but a single honest newspaper in the United States, what a field would be open to it! Every one of them is bribed or intimidated.

Lathyrism is the name given by Surgeon-Captain HENDLEY (*Indian Medical Gazette*, September, 1893, p. 300) to a peculiar form of paraplegia, observed only in males, and traceable to the employment of "teòra" or "khasari dâl" (lathyrus sativus) as the sole article of diet. The essential symptoms were weakness of the lower extremities, with tremor and stiffness, exaggeration of the knee-jerks and ankle-clonus. The health was otherwise preserved. Inquiry disclosed the fact that, the ordinary food-crops having failed, the affected community was compelled to subsist almost entirely upon "teòra." It was generally known that large indulgence in the grain for long periods was likely to induce weakness of the legs, and it was said that a similar outbreak had occurred some sixteen years previously. It was also believed that cattle are sometimes affected. An additional interesting fact is that a good deal of the grain had been blackened and diseased by rain. The opinion is expressed that the disease is a form of multiple sclerosis, perhaps in some way related to the exclusive diet of teòra.

The Cost of Carelessness.—On July 31st a vessel, the *Carlo Rizii*, sailed from Naples, bound for Buenos Ayres, South America, with 1400 emigrants aboard. No care had been taken or sanitary examination made as regards the health of these people sailing from a cholera-infected port, and the disease broke out on the ship. The vessel was not allowed to land her contagion-laden cargo, and had to return to Naples again, when it was found that 240 passengers had died of cholera. Another vessel, the *Remo*, had a similar history, with 147 deaths. These 387 deaths are, therefore, to be charged to the criminal carelessness of the officials who allowed the disgraceful embarcation. The people of Buenos Ayres were not cruel. They had learned their lesson from the bitter experience of a few years previous, when the admission of one or two infected ships from the same port cost the people of South America 40,000 lives.

He Instructs the Public in the Name of Medicine.—The climax is reached when "Leslie E. Keeley, M.D." (the "LL.D." is strangely omitted!), through the columns of the New York *Sun* (*par nobile fratrum!*) reviews the history and progress of medicine, discussing seriously the cause of disease and the contributions of science to pathology. The moral of it all is that the profession has always and without exception at first denied and persistently fought every medical discovery finally forced upon it by the intellectual giants of therapeutics. One would like to ask the shrewd proprietors of the *Sun*: 1. How much they received for the two-column advertisement inserted as genuine reading-matter? 2. If not paid for as an advertisement, why they give two columns of their space gratis to one advertiser and charge such a high price for two columns to another advertiser?

Effect of Use of Liquor on Damages Recoverable for Personal Injuries.—The acts of a person suing to recover damages for personal injuries tending to enhance the injury are admissible in evidence to reduce the amount of the damages under the general issue, whether considered as in mitigation or, as a rule, of limitation of damages, says the Supreme Court of Missouri, in the case of Boggess *vs.* Metropolitan Street Railway Company just reported (23 S. W. Rep. 159), and therefore it holds it competent in such an action for the defendant to show that the injury was enhanced by the continued use of intoxicating liquors.

Professor Roswell Park.—Last week we published a selection from our excellent contemporary, the *Boston Medical and Surgical Journal*, bearing on the fatal accidents that frequently occur to physicians as a result of their unselfish devotion to professional duty. As the words were being printed an eminent member of our guild, whom we all delight to honor, Dr. Park, of Buffalo, was most dangerously ill with diphtheria, derived from a patient in the performance of the operation of intubation. We are happy to be able to state that, according to latest advices, Dr. Park is convalescent.

SELECTIONS.

STATE EXAMINATION FOR LICENSE TO PRACTISE MEDICINE.

WE have before us a copy of the law passed by the Pennsylvania Legislature, regulating the practice of medicine in that State. The act is largely modeled after our own State law, but contains some features which we fear may prove a stumbling-block, because of the non-existence of a board of educational control, such as is our State Board of Regents. A medical council, composed largely of State officers, will be the governing body, who are to supervise the examinations, both academic and professional. And just here is where the trouble is likely to arise. If the work of this council is to be rendered effective, the standing of every educational institution in this country, and the regulations governing foreign schools of learning, must become a part of its office files. The appropriation of moneys for all the purposes of the law is but one thousand dollars per year, which sum includes the salary of the secretary and treasurer. The law is to go into effect March 1, 1894, and if those interested are wise they will ask the regents at Albany to place at the disposal of the Pennsylvania Medical Council the records, accumulated during the past one hundred years, which show the institutions whose certificates indicate the completion of a "competent common school education," and also the rating of the many medical colleges in as well as out of the country.

As in this State, there are to be three boards of examiners, representing the three incorporated systems of medicine. In almost every other particular the law follows closely the lines adopted in our State, and many pitfalls will be avoided if the newly-appointed examiners were to make a practical inspection of the workings of the law in New York. If the same harmony which marks the operation of the law in this State obtains in Pennsylvania, we predict great and lasting results as the outcome of this latest step in the advancement of medical science.

Two years have rolled by since the law empowering the State *alone* to grant license for medical practice has been in operation in New York, and the promises of the advocates of the measure have been more than fulfilled. The situation, fumed at by charlatan, fretted over by frightened student, and fought against by some college professors, has now become a matter of fact, and we hear of no one other than the barnacle that fattens in the absence of restraining influences, who is willing to return to the old order of things which existed for so many years. It is safe to say that in less than ten years the distinctions, now barely understood, or for the most part very much misunderstood, by the laity, which in medicine, as in all science, recognizes only worth and relegates bluster and charlatanry to the rear, will be an open book, so that he who runs may read. The advertising quack will have his place, as does the shyster lawyer, because all *physicians* must needs by that time be on a parity, the foundation of which will be knowledge, vouched for by the State in the form of a license.

Some of the effects of the establishment of State boards of medical examiners have been improved methods of teaching, prolongation of terms of study, and the establishment of new chairs of instruction. While in New York State the entire subject of medicine is divided into seven main topics, the questions asked under these topics are so sub-divided as to comprehend almost every sub-head in medicine. Realizing the importance of having their graduates well equipped for passing these tests, the means above enumerated have been adopted for the benefit of college and profession. In consequence, teachers on hygiene, medical jurisprudence, and other subdivisions of medicine, exist now in fact as well as in name in most of our colleges, a thorough drill and review teaching is a feature of the curriculum, and some of the lecture courses extend over a period of eight months.—*Buffalo Medical and Surgical Journal*, November, 1893.

THE GENTLE TOUCH.

MR. BILTON POLLARD, in his address before the University College, London, gave a very timely and practical hint regarding the kindly treatment of hospital patients by internes. We regret to say that such a lesson is occasionally much needed in many of our public institutions, and the heeding of it will give that necessary exercise of the finer humanities which fits the graduates for the higher grades of successful practice among the so-called cultivated classes. The lecturer very properly maintains that an interne who can, by his gentle methods and appreciative sympathy, win the love and friendship of his poor and dependent patients, has gained as important an experience as any he can obtain in the hospital ward. Not that the ordinary hospital attendant intends any wrong, but there is, in some instances, a sudden inflation of his importance which invites dictatorial brusqueness, and an indisposition, in the exercise of duties supposed to be more important, to give time and thought to the exercise of the better elements of his manliness, by a compassionate consideration for the sufferings of such as are at his mercy. The cry of agony is never necessary for a diagnosis when the surgeon is the active agent of its production. The man who inflicts unnecessary pain in handling an injured limb is either a bungler or a brute.

The difference between the one who considers the feelings of his patient and the other who does not is very apparent in the examination of a wound or the manipulation of a fracture. In the former the practised delicacy of touch discovers all that it is necessary to know concerning the extent or character of the wound, without a sign of pain from the patient; while the latter, by the pressure and twist in the wrong place and at the wrong time, transforms the patient from a quiet, helpful, and submissive subject, to a shrieking and horrified sufferer. Even the most ignorant patient takes such lessons to heart. With a rich patron the question of choice could very easily be settled, but usually the sick or injured pauper must submit to the inevitable. When we consider that the highest science aims to mitigate pain, we can hardly claim superior accomplishments or greater depth of learning for the man whose very touch is signalized by a howl.

While it may not be possible for everyone to obtain this refinement of manipulation, there is no excuse for not cultivating it in every instance. Scientifically speak-

ing, a sick beggar is the same as a sick king. Their nervous systems are made alike, their reflexes are similar, and their pain-centers are equally responsive. The one who can learn early to treat them from the same standpoint of appreciation becomes the sympathizing friend of both, and will be as welcome in the palace as in the hovel. There may be a reason why all cannot be great physicians, but we all can be gentle ones. Even in our most desperate cases, when all other remedies fail, the very last to lose its influence is the kind word fitly spoken.—*Medical Record.*

THE INFLUENCE OF ALCOHOL.

THE influence of alcohol on the nerves, and especially on the motor nerves, is seen in the acute stage of intoxication, and in its chronic form is exhibited in delirium tremens and various forms of neurotic disease. But, fearful as are these diseases, they are of comparatively rare occurrence, while diseases springing from the action of alcohol on the physical organs are of such far more frequent occurrence as to render their consideration of greater practical importance. Alcohol exerts its essential and most significant influence on the vital organs by being taken up in the circulation, and thus brought into direct contact with the cellular tissues of the vital organs. Cirrhosis of the liver, diseases of the heart, of the arteries, of the kidneys, and of the mucous membrane of the alimentary canal, along with gout, diabetes, and fatty degeneration, are all ascribable to it. This is a formidable list when we take into consideration their frequent occurrence, and I can only ascribe the indifference of the profession to a want of realization of the injurious consequences flowing from the pernicious habit. Alcohol is frequently prescribed under the mistaken impression that it possesses wholesome and even healing properties. The physician, as family friend and adviser, should be careful not to err in this direction; especially should alcohol never be administered to children. The prevention of the evils of alcoholism, when once realized, should appeal to us as physicians to enlist all our forces in an earnest effort to grapple with them. Prevention is, in principle, so easy. Nothing is needed but insight and good will! Shall we not, then, gladly embrace the opportunity to avert such endless misery? The ridicule with which the opponents of alcohol are assailed will lose all its force, when one is supported by the firm conviction that he is toiling for a good cause in the service of humanity.—*Dr. Adolf Strümpell.*

REVIEWS.

A TEXT-BOOK OF OPHTHALMOLOGY. By WM. F. NORRIS, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania, etc., and CHARLES A. OLIVER, A.M. M.D., One of the Surgeons to the Wills Eye Hospital, etc. Illustrated with five colored plates and 357 woodcuts. Philadelphia: Lea Bros. & Co., 1893.

THIS book cannot fail take its place as in many respects the best American, which is equivalent to saying the best English, text-book on the subject of Ophthalmology. We have long awaited this volume, in the sense that we have long wished for such a volume from somebody, and also for this special volume by these authors. It is of course true that science knows no nationality or geographic limits, but it is also true that one people, or set of men, may at times push farther than another toward perfection in some one branch or phase of a subject, and thus be better able to present certain advances or practices of it. In ophthalmology Europeon scientists and practising physicians have stamped the specialty with a certain method and tendency that, while gratefully acknowledged by us, and also followed by us quite so far and so fast as is at all desirable, is still surely but a partial and one-sided development. In pathology, inflammatory diseases of the eye, and even in the theoretic aspect of the sciences of refraction, accommodation, and muscular errors, we may have much to learn of our brethren over sea; but it is also true that in the practical aspects of these latter branches of our science we Americans may truly contend that we are also teachers, and that we have discovered much valuable truth to teach.

In these noteworthy fields of the practical application and therapeutic results of scientific optics, Drs. Norris and Oliver have, as we have said, given us the best work yet at hand. In the ordinary text-book the ordinary student either skips entirely the chapters on optics, or he is ludicrously dazed by the incomprehensible mathematic gibberish of the "explanation." But in Dr. Oliver's exquisitely beautiful illustrations and perfect-running text, the simplest (as well as the most trained mind) must find joy in the easy comprehension of the laws of catoptrics, dioptrics, and physiologic optics. When we turn to the chapters of the senior editor on the treatment of the various phases of ametropia, we find clear recognition and exposition drawn from ripe experience of the action and cure of that condition.

The treatment of the diseases of the eye and the highly important bearings of medical ophthalmology are most praiseworthy, and are what was to be expected of the trained and experienced senior editor.

Space at our disposal does not permit of detailed mention of the many excellent things to which we would like to call attention, and criticism of a few incongruities seems almost rude in return for such excellent workmanship.

We are compelled to object to the separation of the treatment of the subjects of ametropia, accommodation, etc:, in two different parts of the book, and think it would have been in better literary taste to have merged these chapters into one connected narrative. Possibly also some confusion to the student would have been avoided.

We are delighted to find a rational statement of the unreliability and defects as well as of the uses of the ophthalmometer. It is abundantly clear that for accuracy and reliance the test-lenses and mydriatic are prerequisites in refraction of the young. Neither is graduated tenotomy a fetich with our authors.

We wish mention had been made of the theories of the influence of ametropia in the production of specific macular changes, and also of the method of treating functional stenosis of the mechanism of the drainage-system by means of antiseptic and astringent physiologic irrigation aided by massage, even if the authors do not believe in these theories.

Of that most important and usually most culpably neglected literary helper, the index, we regret that a word of unqualified blame must be added; and is it not, indeed, too bad to look in vain in the index of a book on ophthalmology, A. D. 1893, for such words as these: *Tenotomy, Epiphora, Epilation, Cryptophthalmus, Collyria, Cocain, Diplopia, Luxation of Eyeball, Malingering, Helmholtz*, etc.? In all other respects unqualified praise must be awarded the editors and publishers for this noble piece of bookmaking, as well in illustration as in typography, etc. By the way, what superb art our Philadelphia engravers and illustrators are showing nowadays!

SYSTEM OF DISEASES OF THE EAR, NOSE, AND THROAT. Edited by CHARLES H. BURNETT, A.M., M.D., Emeritus Professor of Otology in the Philadelphia Polyclinic; Clinical Professor of Otology in the Woman's Medical College of Pennsylvania, etc. Vol. II. Illustrated. 8vo, pp. 858. Philadelphia: J. B. Lippincott Co., 1893.

BURNETT'S System, like the child that has a lot of dainties, "keeps the best for the last." The final article in the concluding volume is on Tuberculosis and Syphilis of the Larynx by no less an authority than J. Solis-Cohen. With characteristically concise comprehensiveness, this chapter, of but thirty-three pages, of which much space is devoted to pictorial illustrations, leaves nothing further to be said upon the two important subjects treated. The results of an unrivalled experience and a rare erudition are given briefly, clearly, and in a judicial spirit. The volume likewise opens well. The first subject treated is Morbid Growths and Deformities of the Nasal Cavities. There are two articles, one by Seiler and one by Jarvis. Seiler's chapter on Pathology, Etiology, Physiology, and Differential Diagnosis is one of the most important contributions to literature made by its accomplished author, and exhibits careful and conscientious study. Jarvis writes of his personal methods in Surgical Procedures, and gives brief reference to the methods of others. Bosworth has an excellent article on Hay-fever, with copious references. He believes that three elements are necessary to the full development of the affection: (1) a neurotic constitution, (2) nasal abnormity, these forming the predisposition, and (3) an exciting irritant, usually pollen, the species varying with the individual. We have seen cases in which no structural abnormity could be detected; otherwise we agree with the author. Joseph A. White writes of Neuroses of the Nose and Nasopharynx, and George M. Gould well elucidates the subject of the Interdependence of Nasal and Ocular Affections. Pathologic conditions of the nose affect the eye more often than those of the eye affect the nose; yet instances of the latter group are not wanting. Skin Diseases of the Nose are treated of by Bulkley, and in his usual thorough manner. A. W. MacCoy has a good chapter on the Anatomy and Physiology of the Pharynx and Larynx. S. H. Chapman writes diffusely but well of Vocal Culture and Hygiene. Thorner's article on Acute Pharyngitis, Bean's on Acute Tonsillitis, Ingals' on Chronic Pharyngitis, and Arnold's on Chronic Laryngitis are interesting and reliable. Croup has been assigned to W. C. Glasgow, who does nothing that is not well done, and who can now write of "idiopathic membranous croup" without fear of contradiction by the parrots. J. Lewis Smith is an authority on his subject—Diphtheria, and Nancrede's article on Surgery in Croup and Diphtheria is judicious. Lupous and Leprous Laryngitis, by Ramon de la Sota, is one of the best contributions to this excellent volume, and will be a standard of reference. Shurly's well-treated subject is Chronic Laryngitis, Simple and Traumatic; Roe's is Foreign Bodies in the Air-passages and Esophagus; C. H. Knight's is Chronic Disease of the Tonsils; R. P. Lincoln has forty good pages on the Pharynx and Larynx in the Exanthemata and Other Febrile Affections; Porcher writes of Neuroses of the Pharynx and Larynx, and Dysphagia; and Lennox Browne contributes a good account of Deformities and Morbid Growths of the Pharynx and Larynx. The volume as a whole is better than the first volume. The editor is to be congratulated on the rare thoroughness of the editorial work. The indices are models.

DISEASES OF THE RECTUM AND ANUS: THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT. By CHARLES B. KELSEY, A.M., M.D., New York, Professor of Diseases of the Rectum at the New York Post-Graduate Medical School and Hospital; late Professor of Diseases of the Rectum at the University of Vermont, etc. Fourth edition, revised and enlarged. With two chromolithographs and one hundred and sixty-two illustrations. Octavo, pp. 496. New York: William Wood & Co., 1893.

THIS standard text-book has been thoroughly revised and brought up to date by the author. It is a work that the general practitioner cannot afford to omit from his library. Diseases of the rectum have for a long time been a special field for quacks and nostrum-venders, for the reason that the regular practitioner failed to examine the rectum digitally in every case of trouble with the lower bowel. Consequently errors in diagnosis were common. In recent years much interest has been manifested in rectal diseases, and as the physician is frequently consulted by his patient for the treatment of these maladies, he will do well to possess some late standard work on the subject. To such we can confidently recommend Dr. Kelsey's book. It is practical, and will enable any physician to recognize and treat many of the affections of the part without occasion to refer the patient to the special surgeon.

In no field of medicine is it more incumbent for the physician to take nothing for granted than in the diagnosis and treatment of diseases of the rectum. Yet, how frequently is a diagnosis of "piles" made by the patient, and accepted by the practitioner, without question or examination. It is true that hemorrhoids constitute the bulk of rectal maladies, yet the specialist and general surgeon are well aware that often the hemorrhoids are but a symptom of some other affection, such as stricture, etc.; therefore, in reading Dr. Kelsey's book, if nothing else is impressed upon the mind of the reader, but this advice, *Never treat a case of disease of the rectum without first making a direct ocular and digital examination*, then the price of the volume will be many-fold times repaid to its owner.

Extended reviews in THE NEWS of former editions of this work render a detailed description of the present volume superfluous.

ESSENTIALS OF BACTERIOLOGY. Being a concise and systematic Introduction to the Study of Microörganisms, for the use of Students and Practitioners. By M. V. BALL, M.D. Second edition, with 81 illustrations and 5 plates. Philadelphia: W. B. Saunders, 1893.

A HANDY little book for the medical student and general practitioner is the second edition of Dr. Ball's *Essentials of Bacteriology*. While of too small a compass to contain any satisfactory presentation or discussion of the many moot points of bacteriology, and for this very reason misleading at times, the book is a useful one—comprehensive to a marked degree for one of the size, well arranged, well printed, finely illustrated, and with a good index.

A striking indifference, however, to the unanimous opinion of systematists, as embodied in the reports of committees on nomenclature in the various scientific congresses of late years, to the effect that all specific names, without exception, should be printed with small initial letters, is shown by the author, who appears to follow no system at all; the specific names of the table of contents all possess capitals, while none of those in the index is thus favored, and a hit-and-miss plan is adopted throughout the body of the book. Aside from this, and a few errors in synonymy, Dr. Ball's little book may fairly be considered one of the very best of its kind.

A DERMATOLOGIC SYSTEM. By DR. S. JESSNER, of Königsberg. Pp. 66. Hamburg: Leopold Voss, 1893.

THE system which is here put forth in detail is built upon the classic work of Hebra, and is on the pathologico-anatomic basis, which we believe to be the right one for many reasons. It differs, however, in distinct particulars from that classification. Six classes are made: 1. Functional anomalies (without visible alterations). 2. Anomalies of the distribution of the blood (without inflammation). 3. Inflammations. 4. Hypertrophies. 5. New growths. 6. Regressive disturbances of nutrition. The work has been prepared with care and from the present standpoint of knowledge, and we commend it to the perusal of all who are interested in dermatology.

CORRESPONDENCE.

COMBINED METHOD OF OPERATING UPON THE BLADDER AND URETHRA.

To the Editor of THE MEDICAL NEWS,

SIR: The accompanying report was already typewritten when your issue of October 14th reached me, containing Dr. Stewart's article on the combined method of operating in cases of ruptured urethra.

All surgeons are well aware of the great difficulty of perineal urethrotomy without a guide, its uncertainty, and the great length of time frequently required to complete it.

While I would by no means presume to say that the combined method is best for *all* operators and in *all* cases, I am nevertheless certain that for most men it is much speedier, easier, and safer than any other.

E. M., thirty-three years old, weaver in a cotton-mill, when between sixteen and seventeen years old, acquired gonorrhea which resulted in stricture. When twenty-five years old he was operated on at the Massachusetts General Hospital. Unsuccessful attempts having been made without ether to introduce a filiform bougie, he was anesthetized and some operation performed. No perineal incision was made. He was in the hospital for about two weeks. For four months after this operation he occasionally introduced a No. 22 F. sound, which had been given him while in the hospital. He never passed this sound into the bladder but only through the pendulous portion of the urethra, and ceased using it because in spite of it his stream grew smaller and smaller until it was as small as before the operation.

After a time the urine came only drop by drop, and finally, in 1889, an attack of complete retention drove him to a physician. A perineal operation was now performed. After this operation the urine came no better than before, and a sound could not be passed. The patient's history during the past four years has been one of continuous suffering, with occasional attacks of retention.

I have seen him in several such attacks, and have relieved him by aspiration, being unable to introduce even a filiform bougie. Finally, on the eighth day of June last, after complete retention for three days, he consented to an operation.

I first opened the bladder above the pubes and passed an instrument from the bladder into the urethra as far as the posterior face of the principal stricture (which was in the membranous urethra). Then I passed an instrument through the anterior urethra as far as the anterior face of the stricture, and cut from one instrument to the other. Then with an Otis urethrotome I cut two strictures in the pendulous urethra, and with a scalpel deepened the perineal wound until a No. 18 E. sound could be easily passed into the bladder. After passing a large catheter through the perineal wound into the bladder for a drain and washing out the bladder with warm boric-acid solution, the man was put to bed. The supra-pubic wound was left open. The bladder was drained until no fluid could be forced through the supra-pubic wound. The man was at work in the mill with all his wounds healed in less than a month from the day of the operation. He uses the No. 18 E. sound himself about once a week, without any trouble at all.

My reasons for preferring this combined mode of operating were: 1. No guide could be worked through the stricture. 2. An excellent surgeon had failed to find the urethra behind the stricture in 1889. 3. The perineum was one mass of scar-tissue in the neighborhood of the urethra. 4. The patient was in such a condition that I considered it of importance to operate as quickly as possible.

The operation as described is easily performed, except when, as happened in this case, the bladder is very deeply situated and the peritoneum comes further down on its anterior surface than usual. In such cases the serous membrane must be dissected up with the scapel-handle and finger-nail until enough of the bladder is

exposed, and I have found that an assistant with two fingers in the rectum can push up the bladder much better than can be done with a rectal bag, even though the latter be helped by putting the patient in the Trendelenburg position.

Respectfully,

GARRY DEN. HOUGH, A.B., M.D.

NEW BEDFORD, MASS.

NEWS ITEMS.

Congress of American Physicians and Surgeons.—At a meeting of the Executive Committee of the Congress of American Physicians and Surgeons recently held in New York, and attended by representatives of the various constituent organizations, a local committee of arrangements in Washington was appointed as follows: Drs. S. S. Adams, John S. Billings, H. C. Beyer, S. O. Ritchie, S. C. Busey, W. W. Johnston, J. Atkinson, Wm. H. Welch, I. C. Rosse, Samuel Theobald, T. Morris Murray, D. W. Prentiss, Frank Baker.

It was arranged that the following subjects should be discussed by the Congress at its next meeting in Washington in the latter part of May, 1894:

The Climatological Association: "Sewer Gas."

Genito-Urinary Association: "The Surgical Kidney in its Clinical Aspects."

Dermatological Association: "Leprosy in the United States."

Laryngological Association: "Intra-nasal Surgery."

Gynecological Association: "The Conservative Treatment of the Female Pelvic Organs."

Neurological Association: "The Effects of Infectious Processes on the Nervous System."

Dr. Wm. H. Welch was elected to fill the vacancy on the committee occasioned by the resignation of Dr. W. H. Carmalt, so that the committee now consists of Dr. A. L. Loomis, President of the Congress; Dr. Landon Carter Gray, Chairman of the Executive Committee; Dr. Newton M. Shaffer, Secretary of the Executive Committee, and Dr. Wm. H. Welch.

A Case of Distoma Hematobium in Chicago.—HILLMANTEL (*Chicago Medical Recorder*, vol. v, No. 4, p. 230) has reported a case of distomiasis in an Egyptian boy twelve years old, connected with one of the departments of the Columbian Exposition at Chicago. The only symptom complained of was hematuria, which had been present in varying degree for six years. The general health was good and there was no elevation of temperature. The urine presented a reddish-brown color and contained a considerable quantity of albumin and clotted blood. In addition ova of the distoma hematobium were found, but a fully developed worm could not be detected.

Dr. William F. Hutchinson, who was only recently elected to the chair of Electro-therapeutics in the newly organized Tufts Medical School of Boston, died on October 2d, in consequence of a cardiac lesion, at the age of fifty-five. He was a man of liberal education and served faithfully in the War of the Rebellion.

Correction.—By an inadvertence the word "inaccessible" appears instead of "*accessible*," in the last line of the quotation from Osler's *Practice of Medicine*, on the second column of page 517 of THE NEWS of November 4, 1893.

BOOKS AND PAMPHLETS RECEIVED.

La Sudure Complète du Voile Palais et du Pharynx. Par le Dr. A. Cartaz. Paris: G. Steinheil, Editeur, 1893.

Our Dispensaries, Hospitals, Philanthropy, Frauds, and the Necessity of Medical Reform. By L. F. Criado, A.B., M.D. Reprinted from the Brooklyn Medical Journal, 1893.

The Treatment of Alcoholic Inebriety. By Frederick Peterson, M.D. Reprinted from the Journal of the American Medical Association, 1893.

Leptothrix Mycosis of the Tonsil, Pharynx, and Base of the Tongue. By William Cheatham, M.D. Reprinted from the American Practitioner and News, 1893.

Cremation and its Importance in Cholera. By Robert Newman, M.D. Reprinted from the Sanitarian, 1893.

The Reconstruction of the Pelvic Structures in Woman. By Henry O. Marcy, M.D. Reprinted from the Transactions of the American Association of Obstetricians and Gynecologists, 1892

Woman's Medical College of Pennsylvania, Philadelphia. Catalogue and Forty-fourth Annual Anncuncement, May, 1893.

In Memory of Prof. T. G. Richardson, M.D. Memorial Address delivered on Commencement Day, April 5, 1893. By Prof. Stanford E. Chaillé, A.M., M.D., Dean of the Medical Department, Tulane University, La.

Catalogue of the Pennsylvania State College, 1892–93. State College, Penna., 1893.

Movable Kidney; with a Report of Twelve Cases treated by Nephrorrhaphy. By George M. Edebohls, A.M, M.D. Reprinted from the American Journal of the Medical Sciences, 1893.

Revue Statistisque des Maladies de la Gorge, du Larynx, du Nez, et des Oreilles. Par le Docteur R. Beausoleil. Paris, 1893.

A Case of Rupture of Ovarian Cyst. By Reuben Peterson, M.D. Reprinted from the American Journal of Obstetrics, 1893.

Paralysis Agitans. By Francis X. Dercum, M.D. Reprinted from International Clinics, vol. i, 2d series.

Note on a Chinese Brain. By Francis X. Dercum, M.D. Reprinted from the Journal of Nervous and Mental Disease, 1892.

An Indication for the Treatment in Hemifacial Atrophy. By F. X. Dercum, M.D. Reprinted from the Journal of Nervous and Mental Disease, 1892.

A Case of Ataxia of Irregular Type following Injury. By F. X. Dercum, M.D. Reprinted from the Journal of Nervous and Mental Disease, 1891.

Diseases of the Eye. By George A. Berry, M.B., F.R.C.S. Second edition. Philadelphia: Lea Brothers & Co., 1893.

The Anesthetic Zone in Nitrous-oxid Anesthesia. By John D. Thomas, D.D.S. Reprinted from the Dental Cosmos, 1893.

Zur Therapie der Hautkrebse. Von Dr. Oscar Lassar. Sonderabdruck aus der Berliner klin. Wochenschrift, 1893, No. 23.

Catalogue of the Albany Medical College, Sixty-second Session, 1892–3, and Announcement for Session of 1893–94. Albany: Press of Brandow Printing Co., 1893.

University of Pennsylvania. Catalogue for Sessions of 1892–93, and Announcement for Sessions of 1893–94. 128th Annual Session, Department of Medicine. Philadelphia, 1893.

Milk Legislation; Variability of Milk Solids; Honesty No Safeguard; No Sanitation in "Legal Limits." By George Abbott. Reprinted from the Times and Register, 1893. Appendix. Skim Milk—a Wholesome, Nutritious, and Economic Food.

Cases of Anemia, with Great Enlargement of the Spleen (Splenic Anemia); Pathologic Changes in the Spleen. By R. T. Williamson, M.D. (Lond.), M.R.C.P. Reprinted from the Medical Chronicle, 1893.

Enteroplexie. Par le Dr. Adalbert Ramauge. Mémoire Presenté et Couronné au Concours de Médecine Internationale Sud-Americain le 20 Janvier, 1893. Imprimerie, Lithographie et Atelier de Reliure de Jacobo Penser. Buenos Ayres: Esquina San Martin y Cangallo.